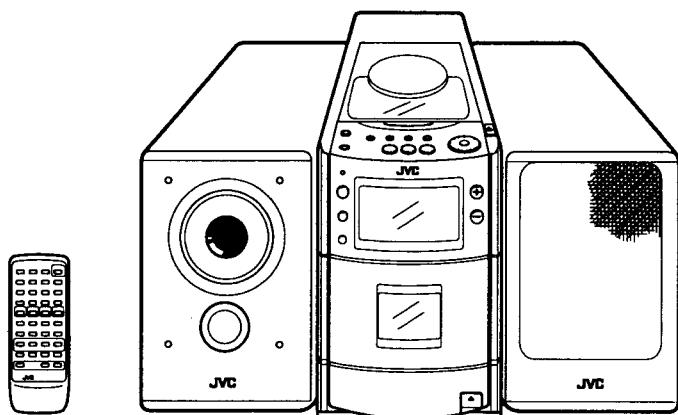


JVC

SERVICE MANUAL

MICRO COMPONENT SYSTEM

UX-T200R GD B/E/EN/G



Area Suffix

B.....	U.K.
E.....	Continental Europe
EN	North Europe
G	Germany

C R D S EON

**COMPACT
DISC
DIGITAL AUDIO**

Contents

1. Safety Precautions.....	Page2	8. Wiring Connections	35
2. Safety Precaution about UX-T200R.....	3	9. Analytic Drawing and Parts List	36
3. Instructions	5	10. Block Diagram	40
4. Location of Main Parts.....	17	11. Standard Schematic Diagrams.....	41
5. Removal of Main Parts	19	12. Location of P. C. Board Parts.....	46
6. Main Adjustment.....	28	13. Electrical Parts List.....	50
7. Out Line of Main IC	33	14. Packing	62

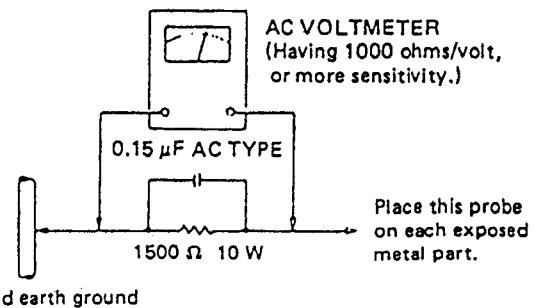
1. Safety Precautions

1. The design this product contains special hardware and many circuits and components specially for safety purposes. For continued protection, no changes should be made to the original design unless authorized in writing by the manufacturer. Replacement parts must be identical to those used in the original circuits. Service should be performed by qualified personnel only.
2. Alterations of the design or circuitry of the product should not be made. Any design alterations of the product should not be made. Any design alterations or additions will void the manufacture's warranty and will further relieve the manufacture of responsibility for personal injury or property damage resulting therefrom.
3. Many electrical and mechanical parts in the product have special safety - related characteristics. These characteristics are often not evident from visual inspection nor can the protection afforded by them necessarily be obtained by using replacement components rated for higher voltage, wattage, etc. Replacement parts which have these special safety characteristics are identified in the parts list of service manual. Electrical components having such features are identified by () on the schematic diagram and parts list in the service manual. The use of a substitute replacement which does not have the same safety characteristics as the recommended replacement part shown in the parts list of service manual may create shock, fire, or other hazards.
4. The leads in the products are routed and dressed with ties, clamps , tubings, barriers and the like to be separated from live parts, high temperature parts, moving parts and or sharp edges for the prevention of electric shock and fire hazard. When service is required, the original lead routing and dress should be observed, and it should be confirmed that they have been returned to normal, after reassembling.
5. Leakage current check (Electrical shock hazard testing)

After re - assembling the product, always perform an isolation check on the exposed metal parts of the product (antenna terminals, knobs, metal cabinet, screw heads, headphone jack, control shafts, etc.) to be sure the product is safe to operate without danger of electrical shock. Do not use a line isolation transformer during this check.

- Plug the AC line cord directly into the AC outlet. using a "Leakage current tester", measure the leakage current from each exposed metal part of the cabinet, particularly any exposed metal part having a return path to the chassis, to a known good earth ground. Any leakage current must not exceed 0.5mA AC(r.m.s.)
- Alternate check method

Plug the AC line cord directly into the AC outlet. Use an AC voltmeter having 1,000 ohms per volt or more sensitivity in the following manner. Connect a 1,500 ohms 10W resistor paralleled by a $0.15 \mu F$ AC type capacitor between an exposed metal part and a known good earth ground. Measure the AC voltage across the resistor with the AC voltmeter. Move the resistor connection to each exposed metal part, particularly any exposed metal part having a return path to the chassis, and measure the AC voltage across the resistor. Now, reverse the plug in the AC outlet and repeat each measurement. Any voltage measured



Warning

1. This equipment has been designed and manufactured to meet international safety standards.
2. It is the legal responsibility of the repairer to ensure that these safety standards are maintained.
3. Repairs must be made in accordance with the relevant safety standards.
4. It is essential that safety critical components are replaced by approved parts.
5. If mains voltage selector is provided, check setting for local voltage.

CAUTION

Burrs formed during molding may be left over on some parts of the chassis. Therefore, pay attention to such burrs in the case of performing repair of this system.

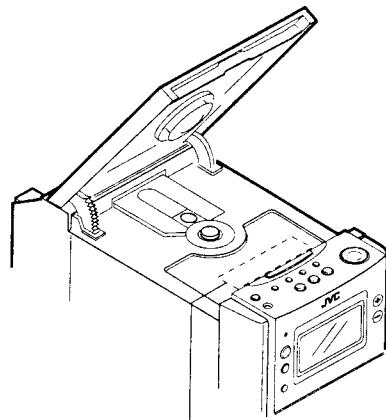
2. Safety Precaution about UX – T200R

IMPORTANT FOR LASER PRODUCTS

PRECAUTIONS

1. CLASS 1 LASER PRODUCT
2. **DANGER:** Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. **CAUTION:** Do not open the rear cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. **CAUTION:** The compact disc player uses invisible laser radiation and is equipped with safety switches which prevent the emission of radiation when the CD holder is open. It is dangerous to defeat the safety switches.
5. **CAUTION:** Use of controls for adjustments and the performance of procedures other than those specified herein may result in exposure to hazardous radiation.
6. **CAUTION:** The laser is able to function, if safety switches out of function. The laser light is invisible, avoid exposure, do not disassemble the laser unit, but replace the complete unit.

REPRODUCTION OF LABELS AND THEIR LOCATION



DANGER: Invisible laser radiation when open and interlock failed or defeated
AVOID DIRECT EXPOSURE TO BEAM. (e)

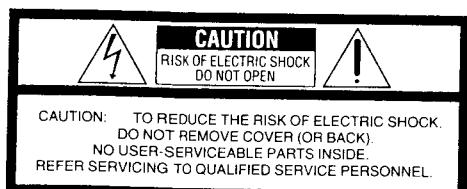
ADVARSEL: Usynlig laserstråling ved åbning, når sikkerhedsafbrydere er ude af funktion. Undgå udsettes for stråling. (d)

VARNING: Osynlig laserstråling när denna del är öppnad och spärren är urkopplad. Beträkta ej strålen. (s)

VARO: Avattaessa ja suojauslukitus ohitettaessa olet alttiina näkytmättömälle lasersäteilylle. Älä katso sateeseen. (f)

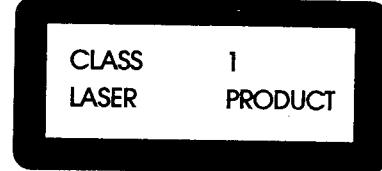
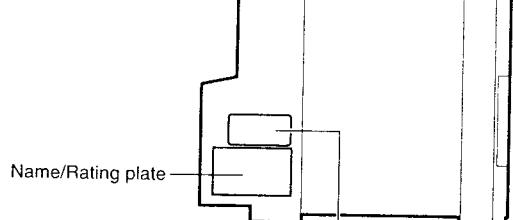
WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.



The lightning flash with arrowhead symbol, within an equilateral triangle, is intended to alert the user to the presence of uninsulated "dangerous voltage" within the product's enclosure that may be of sufficient magnitude to constitute a risk of electric shock to persons.

The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in this manual.



Caution:
This production contains a laser component of higher laser class than Class 1.

■ Important management points regarding safety(Item demanding special safety precautions)

1. Power transformer marking : VTP66J2-12L

The torque of the screw driver for the power transformor must be controlled.

2. Concerning the AC socket, the next marking must be confirmed and to avoid print circuit board pattern damage.

The AC socket must not float from print circuit board.

•Marking HJC – 027

3. Concerning the primary terminal and the adjacent secondary terminal on the print circuit board to provide proper creeping and spatial distance, solder must not protrude from soldering round.

4. Before installation confirm the fuse capacity indication, (⊖) and (⊚) marks on the fuse holder.

REF.NO	Capacity and mark	Indication on P.C.board
F901	T400mA	T400mA
F903	T5A	T5A

5. Following parts are controlled as the heated parts. Confirm that the flammable parts are lifted up ,the parts in () must be control.

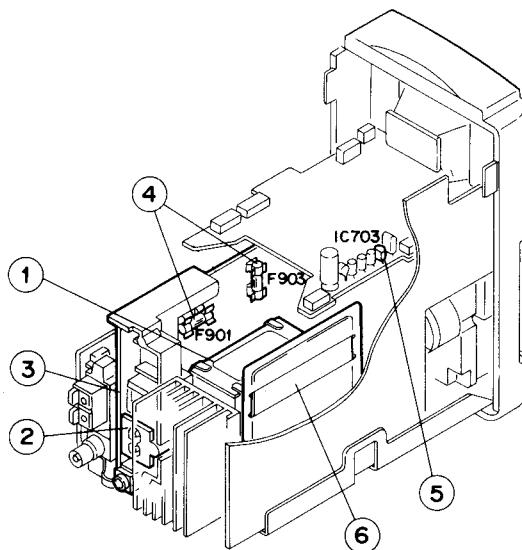
• IC : IC31, (IC703), Transistor : Q9001 , Q9201, Q303, Q304, Q305, Resistor : R9009, R9010, R9011, R9021, R310, R311, R9102, • Diode: D901, D902, D903, D904, D7011 • Radiation

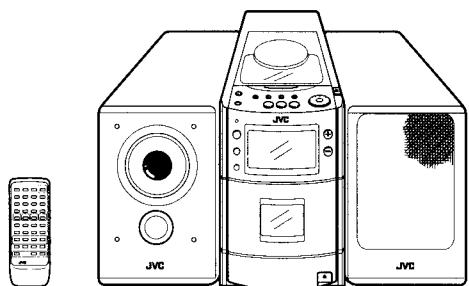
6. The barrier must be attached on the shield of tighten with the transformer.

7. Confirm following EMC (Electromagnetic Compatibility)control matter.

Control parts , and Control work (Symbol number)

TU1 , CF1, CF2, L1, L11, C8 (Tuner board) , C901, C902, C903, C904, L901(Main board)



JVC**MICRO COMPONENT SYSTEM****UX-T200R B****RDS EON****COMPACT
DISC
DIGITAL AUDIO****INSTRUCTIONS****ENGLISH**

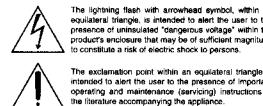
Thank you for purchasing this JVC product. Please read these instructions carefully before starting operation to be sure to obtain optimum performance and a longer service life from the unit.

**CONTENTS**

Features	3
Safety precautions	3
Handling precautions	4
Connections	5
Power supply	7
Names of parts and their functions	8
Remote control unit	10
Switching the power on/off	11
Volume, tone and other controls	11
Handling CDs	12
Playing CDs	12
Handling cassette tapes	15
Cassette playback	15
Radio reception	16
Recording	20
Clock adjustment	22
Timer operations	23
Maintenance	26
Troubleshooting	26
Specifications	27

WARNING:

TO REDUCE THE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE.

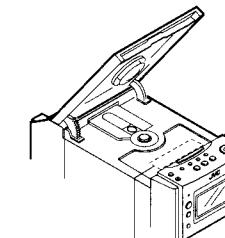


The lightning flash with exclamation symbol, within an equilateral triangle, is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

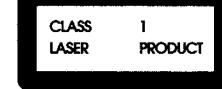
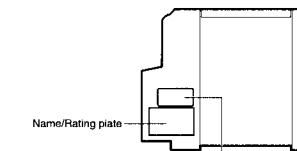
The exclamation point within an equilateral triangle is intended to alert the user to the presence of important operating and maintenance (servicing) instructions in the literature accompanying the appliance.

IMPORTANT FOR LASER PRODUCTS**PRECAUTIONS**

1. CLASS 1 LASER PRODUCT
2. DANGER: Invisible laser radiation when open and interlock failed or defeated. Avoid direct exposure to beam.
3. CAUTION: Do not open the rear cover. There are no user serviceable parts inside the unit; leave all servicing to qualified service personnel.
4. CAUTION: The CD player uses invisible laser radiation and is equipped with safety switches which prevent the emission of radiation when the CD holder or CD tray is open. It is dangerous to defeat the safety switches.
5. CAUTION: Use of controls for adjustments and the performance of procedures other than those specified herein may result in exposure to hazardous radiation.

REPRODUCTION OF LABELS AND THEIR LOCATION

DANGER: Invisible laser radiation when open and interlock failed or defeated. AVOID DIRECT EXPOSURE TO BEAM. (e)	ADVARSEL: Lydlig laser stråling ved åpening, når sikkerhetskontakten ikke er i funksjon. Unngå direkte utsættelse for strålingen. (d)	WARNING: Oplysningslabel om lydlig laserstråling når denne delen af komponenten åbnes og låseskållet ikke er i funktion. Beregnet til stråling. (c)	VARO: Asetta laite jättää näkyvöitä laseroituessa sen takapinnassa, jos turvalaitos ei ole kytketty mukaiseksi. Älä katso läpi seuraavien suojamerkkien sijaintipaikkoja. (f)
---------------------------------------------------------------------------------------------------------------------	---------------------------------------------------------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------



Caution:
This production contains a laser component of higher laser class than Class 1.

3. Instructions

IMPORTANT (in the United Kingdom)
Mains Supply (AC 230 V~, 50 Hz only)

DO NOT cut off the mains plug from this equipment. If the plug fitted is not suitable for the power points in your home or the cable is too short to reach a power point, then obtain an appropriate safety approved extension lead or consult your dealer.

BE SURE to replace the fuse only with an identical approved type, as otherwise you may be liable to pay for damage caused.

If nonetheless the mains plug is cut off ensure to remove the fuse and dispose of the plug immediately, to avoid a possible shock hazard by inadvertent connection to the mains supply.

IMPORTANT

DO NOT make any connection to the terminal which is marked with the letter E or by the safety earth symbol or coloured green or green-and-yellow.

The wires in the mains lead on this product are coloured in accordance with the following code:



As these colours may not correspond with the coloured markings identifying the terminals in your plug proceed as follows:

The wire which is coloured blue must be connected to the terminal which is marked with the letter N or coloured black.

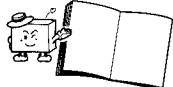
The wire which is coloured brown must be connected to the terminal which is marked with the letter L or coloured red.

IF IN DOUBT - CONSULT A COMPETENT ELECTRICIAN.

FEATURES

- CD size micro component system consisting of 3 units
- Radio data system (RDS)
- Active Hyper-Bass PRO circuit for low-frequency sound reproduction
- One-touch operation (COMPU PLAY)
- 35-key remote control unit operates all CD, cassette deck and tuner functions
- Multi-function CD player
- Programmed play of up to 20 tracks
- Repeat Play
- Random Play
- U-Turn auto-reverse full-logic mechanism
- Auto tape select mechanism

- Metal (type IV) and CrO₂ (type II) tape can be played back for superior tone quality
- CrO₂ (type II) tape recording capability
- 2-band digital synthesizer tuner with 45-station (30 FM and 15 AM (MW/LW)) preset capability
- Seek/manual tuning
- Auto preset tuning
- Timer/Clock function
- Timer on/off with preset volume function
- Sleep timer can be set for up to 120 minutes

SAFETY PRECAUTIONS**Prevention of Electric Shocks, Fire Hazards and Damage**

1. Even when the \odot/I button is set to STANDBY, a very small current will flow. To save power and for safety when not using the unit for an extended period of time, disconnect the power cord from the household AC outlet.
2. Do not handle the power cord with wet hands.
3. When unplugging from the wall outlet, always grasp and pull the plug, not the power cord.
4. Consult your nearest dealer when damage, disconnection, or contact fail affects the cord.
5. Do not modify the cord severely, or pull or twist it.
6. Do not drop the power cord in any manner.
7. To avoid accidents do not remove screws to disassemble the unit and do not touch anything inside the unit.
8. Do not insert any metallic objects into the unit.
9. Unplugging the power cord when there is a possibility of lightning.
10. If water gets inside the unit, unplug the power cord from the outlet and consult your dealer.
11. Do not block the unit's ventilation holes that allow heat to escape.
- Do not install the unit in a badly ventilated place.

 \odot/I button

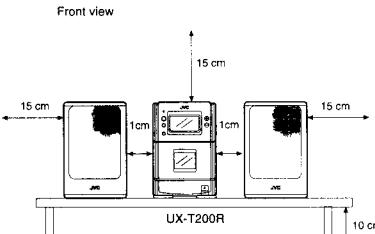
When the power cord is connected to a household AC outlet, the power indicator lights in red indicating the STANDBY mode. When the \odot/I button is pressed, the power indicator goes out and the display window lights.

When this unit is plugged into an AC outlet, it consumes a small current to operate the remote control and timer, or to back up the memory of the microprocessor, even when the \odot/I button is set to STANDBY.

Caution:**Proper Ventilation**

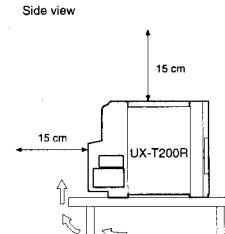
To avoid risk of electric shock and fire, and to prevent damage, locate the apparatus as follows:

1. Front:
No obstructions and open spacing.



2. Sides/Top/Back:
No obstructions should be placed in the areas shown by the dimensions below.

3. Bottom:
Place on a level surface. Maintain an adequate air path for ventilation by placing on a table with a height of 10 cm or more.

**HANDLING PRECAUTIONS**

Do not use this unit in direct sunlight where it would be exposed to high temperatures above 40°C (104°F).

1. Avoid installing in the following places

- Where it could be subject to vibrations.
- Where it is excessively humid, such as in a bathroom.
- Where it could be magnetized by a magnet or speaker.

2. Pay attention to dust

Be sure to close the CD holder or CD tray so that dust does not collect on the lens.

3. Condensation

In the following cases, condensation may occur in the unit, in which case the unit may not operate correctly.

- In a room where a heater has just been switched on.
- In a place where there is smoke or high humidity.
- When the unit is moved directly from a cold to a warm room.

In these cases, set the \odot/I button to STANDBY and wait 1 or 2 hours before use.

4. Volume setting

CDs produce very little noise compared with analog sources. If the volume level is adjusted for these sources, the speakers may be damaged by the sudden increase of output level. Therefore, lower the volume before operation and adjust it as required during play.

5. Safety mechanism

This unit incorporates a safety interlock mechanism which switches the laser beam on and off, so that when the CD holder or CD tray is open, the laser beam stops automatically.

6. Do not place cassette tapes, etc. near the speakers

Since there are magnets in the speakers, do not place tapes or magnetic cards on them as recorded data could be erased.

7. Keep this unit away from your TV

When this unit is used near a TV, the TV picture could be distorted. If this happens, move this unit away from the TV. If this does not correct the situation, avoid using this unit when the TV is turned on.

8. Cleaning the cabinet

If the cabinet gets dirty, wipe it with a soft, dry cloth. Never use benzine or thinner as these could damage the surface finish.

9. When listening with headphones

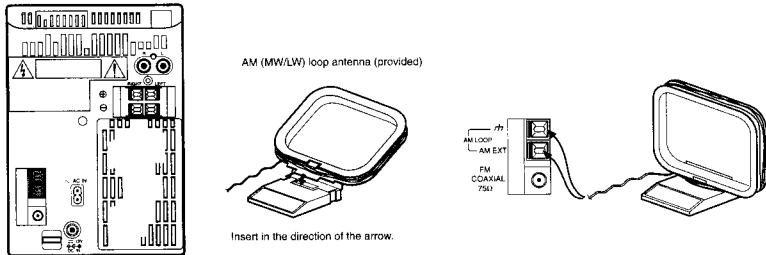
- Do not listen at high volumes as this could damage your hearing.
- For safety, do not drive while listening to this unit.

CONNECTIONS

- Do not switch the power on until all connections are completed.

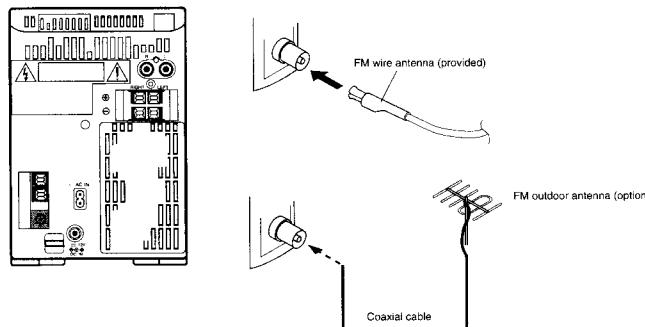
Antenna connection and adjustment

- AM (MW/LW) loop antenna adjustment



- Keep the loop antenna away from the unit and install it so that the best reception is obtained. (Do not leave the antenna wire in a bundle.)

FM antenna connections and adjustments

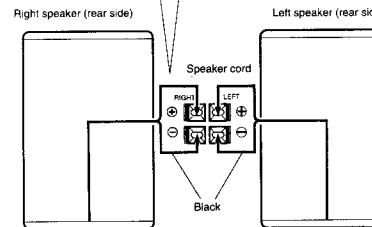
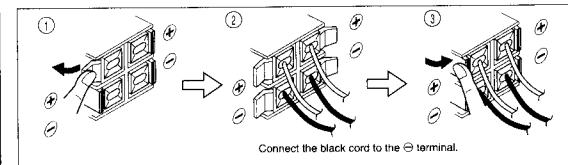
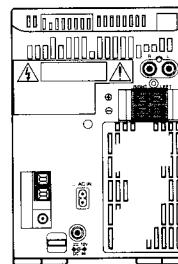


- Use an outdoor antenna when stable reception cannot be obtained with the provided antenna.

Notes:

- Do not place the loop antenna on a metal desk or near a TV or personal computer.
- Installing an outdoor antenna requires expertise; we recommend that you consult an audio dealer.
- Install the antenna cord away from the power and speaker cords as these could generate noise. Do not install the loop antenna so that it touches the rear of the unit.

Speaker cord connection

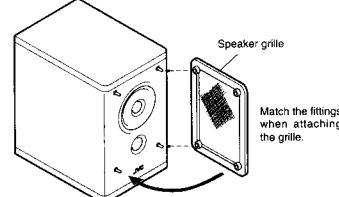


- Connect the cord from the speaker on the left to the (LEFT) terminals and the cord from the speaker on the right to the (RIGHT) terminals.

The speaker grilles can be removed.

- When removing
 - Insert your fingers at the top and pull towards you.
 - Also pull the bottom towards you.

Attaching the speaker grille

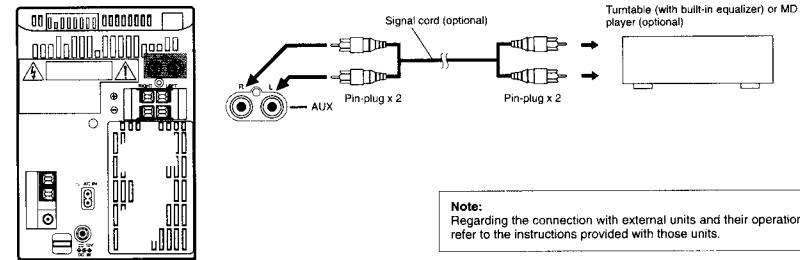


Notes:

- The polarity of the two connected speakers will be the same if the black speaker cords are connected to the \ominus terminals. If the speakers are connected with polarities reversed, stereo effect and tone will be degraded.
- The speakers of this unit are not magnetically shielded. When they are placed directly on or adjacent to a TV, the TV's picture could be distorted. Install the speakers more than 20 cm away from your TV.
- When connecting the speaker cord make sure that the wire core, not the insulating cover, is connected to the speaker terminal. Otherwise, sound cannot be heard.

Connection of external audio units

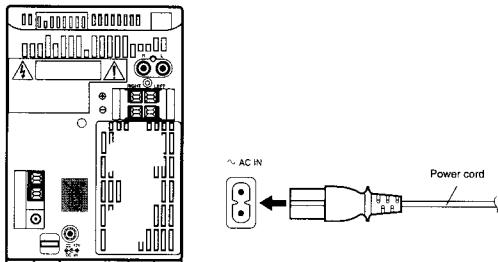
Connection with a turntable (or MD player)



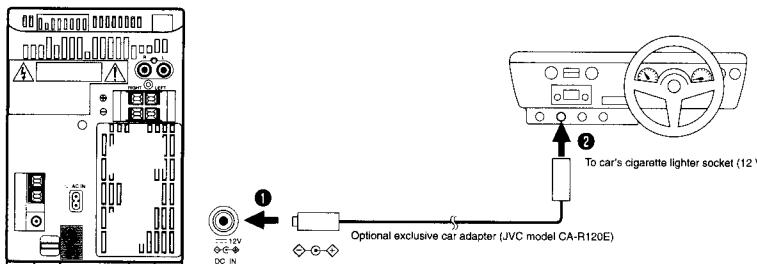
Note:
Regarding the connection with external units and their operations, refer to the instructions provided with those units.

POWER SUPPLY**A. Connection of AC power cord**

- Connect the AC power cord after all other connections have been made.

**CAUTIONS:**

1. ONLY USE THE JVC POWER CORD PROVIDED WITH THIS UNIT TO AVOID MALFUNCTION OR DAMAGE TO THE UNIT.
2. BE SURE TO UNPLUG THE POWER CORD FROM THE OUTLET WHEN GOING OUT OR WHEN THE UNIT IS NOT IN USE FOR AN EXTENDED PERIOD OF TIME.

B. Operation on car battery (DC 12 V)

- First connect the car adapter to the DC IN 12 V jack, not the cigarette lighter socket, because shorting of a plug on the car may cause the fuse to blow out. In addition, be careful not to make a short-circuit between the plugs.

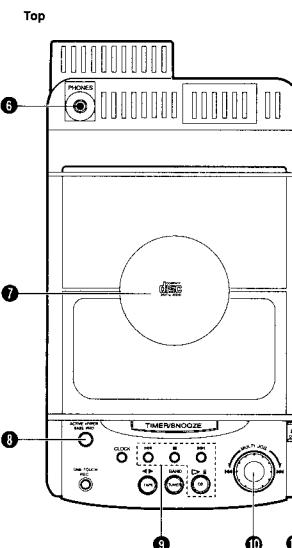
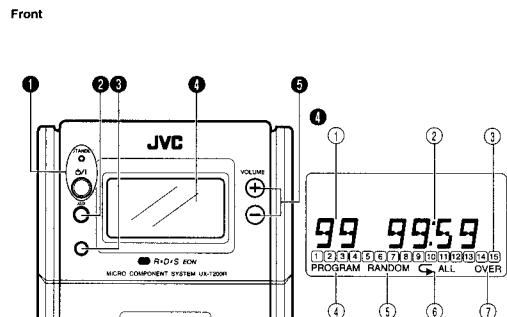
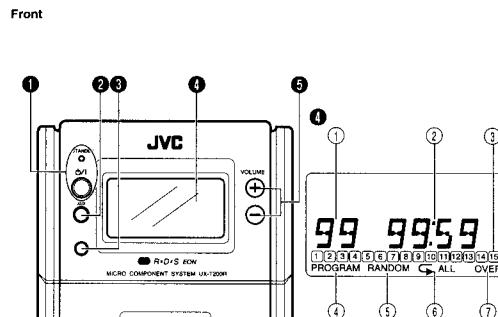
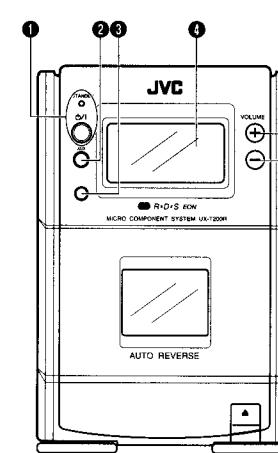
- When using a car battery, be sure to use the specified car adapter (JVC model CA-R120E) to prevent mishaps or damage resulting from different polarity design.

Note:

- When there is a power failure or the AC power cord is disconnected, the timer/clock setting is erased from memory. Reset the clock when the power supply is restored.

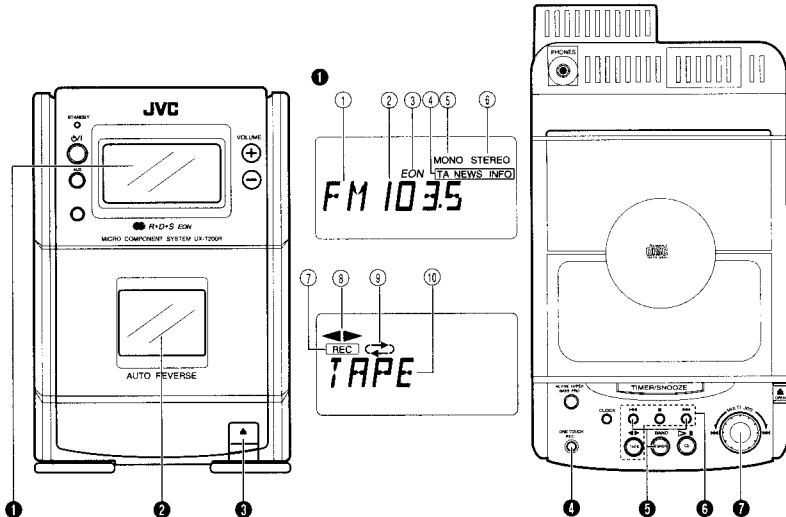
NAMES OF PARTS AND THEIR FUNCTIONS**CD player/General section**

Front



- ⑬** Headphones jack (PHONES) (3.5 mm dia. stereo mini)
Connect headphones (impedance 16Ω to 1kΩ) to this jack. Speaker sound is automatically switched off when the headphones are connected.
- ⑮** CD holder
- ⑯** ACTIVE HYPER BASS PRO button
- ⑰** CD operations buttons
⑱ Stop button (■):
Press to stop playing a CD.
⑲ CD play/pause button (▷■):
Press to play a CD or to stop temporarily.
- ㉑** MULTI JOG dial
When the function is CD and the dial is turned, the beginning of a track can be searched. (1 track is selected by 2 clicks.)
- ㉒** CD holder OPEN (△) button

Tuner/Deck section



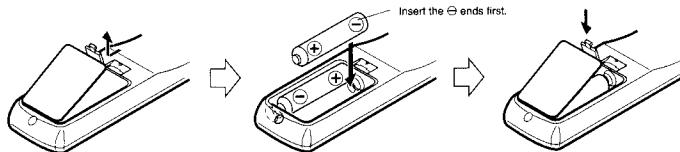
- ① Display window
- ② Band indicator
- ③ Radio frequency display
- ④ EON indicator
- ⑤ Programme type (TA/NEWS/INFO) indicators
- ⑥ MONO indicator
- ⑦ STEREO indicator
- ⑧ Recording indicator (REC)
- ⑨ Tape direction indicator (↔)
- ⑩ Reverse mode indicator (↔/↔↔↔)
- ⑪ Tape (TAPE) mode display
- ⑫ Cassette holder
- ⑬ Cassette holder eject (▲) button

- ⑭ ONE TOUCH REC button
- ⑮ TUNER/BAND button
 - Press to select tune mode.
 - Press to select the band.
 - Tuning buttons (↔↔↔)
- ⑯ Cassette operation buttons
 - ↔: Press to rewind the tape.
 - : Press to stop the tape.
 - ↔: Press to fast wind the tape.
- ⑰ TAPE (↔): Press to select the TAPE mode.
 - : Press to play back the tape in the forward direction.
 - The ▶ indicator lights in the display window.
 - : Press to play back the tape in the reverse direction.
 - The ◀ indicator lights in the display window.
- ⑱ MULTI JOG dial
 - The preset station can be selected. (1 station is selected by 2 clicks.)

REMOTE CONTROL UNIT

Preparation before use

- **Installing batteries in the remote control unit**
 1. Remove the battery cover from the back of the remote control unit.
 2. Insert two "R6/AA (15F)" size batteries.
 - Insert the batteries with the + and - terminals matching the indication inside the battery compartment.
 3. Replace the cover.



• Battery replacement

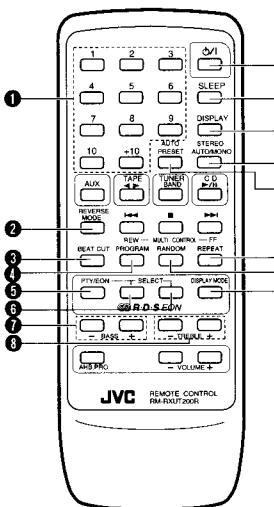
When the remote control operation becomes unstable or the distance from which remote control is possible decreases, replace the batteries.

Using the remote control unit

- Point at the remote sensor and operate within about 7 m (approx. 23 ft).
- The remote control range is less when the unit is used at an angle.
- Do not expose the remote sensor to strong direct sunlight or artificial lighting.
- Make sure that there are no obstacles between the remote sensor and the unit.

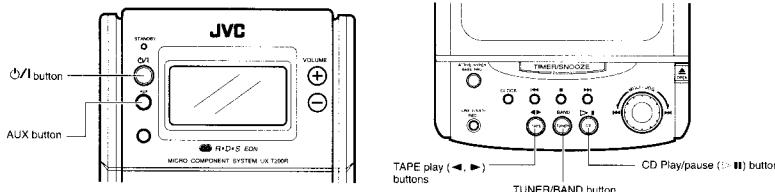
The following operations can be performed using the remote control unit.

- Check the operation button functions carefully and operate them correctly.



- ① Track number buttons (No. 1 to No. 10, +10)
 - Press station buttons (No. 1 to No. 10, +10)
- ② REVERSE MODE button
 - ↔ For single-side recording or playback.
 - ↔↔ For recording or playback on both sides.
 - ↔↔↔ For continuous play.
- ③ BEAT CUT button
- ④ PROGRAM button
- ⑤ PTY (Programme Type)/EON (Enhanced Other Networks) button
- ⑥ PTY/EON SELECT buttons
- ⑦ BASS buttons (+, -)
 - (Control range from -6 to 6)
- ⑧ TREBLE buttons (+, -)
 - (Control range from -6 to 6)
- ⑨ d/i button
- ⑩ SLEEP button
- ⑪ DISPLAY button
 - Use to display the current time.
- ⑫ STEREO AUTO/MONO button
- ⑬ AUTO PRESSET button
- ⑭ REPEAT button
- ⑮ RANDOM button
- ⑯ DISPLAY MODE button

- Buttons not mentioned here have the same functions as those on the main unit.

SWITCHING THE POWER ON/OFF**Switching the power on/off**

- Switching on:



The STANDBY indicator goes out. • The indicator in the display window lights.

- Switching off:



The STANDBY indicator lights. • The indicator in the display window goes out and only the clock is indicated.

One touch operation (COMPU PLAY)

Even when the power is set to STANDBY, pressing the button shown below switches on the power and selects the source.

	Function mode	Operations
	CD	When this button is pressed with a CD loaded, CD playback begins.
	TAPE	When this button is pressed with a tape loaded, tape playback begins.
	TUNER	When this button is pressed, the tuner is engaged.
	AUX	A sound source connected to the AUX terminal can be engaged.

Notes:

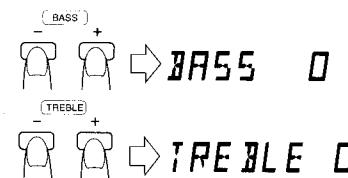
- When switching off the power, be sure to press the d/I button.
- The COMPU PLAY function the remote control has the same function as that on the main unit.

VOLUME, TONE AND OTHER CONTROLS**VOLUME buttons**

- + : Use to increase the volume.
- : Use to decrease the volume.
- (Control range from VOLUME 0 to VOLUME 50)

**BASS/TREBLE buttons (using the remote control unit)**

To set the bass or treble level, press the corresponding button. The level setting ranges from -6 to 6.

**ACTIVE HYPER-BASS PRO button**

ON: The BASS indicator lights up. Set to this position to activate ACTIVE HYPER-BASS PRO sound.

OFF: The BASS indicator goes out. Set to this position when ACTIVE HYPER-BASS PRO sound is not required.

HANDLING CDs

Since dirty, damaged and warped CDs may damage the unit, take care regarding the following:

1. Usable CDs

Use CDs with the mark shown.

2. Notes on handling CDs

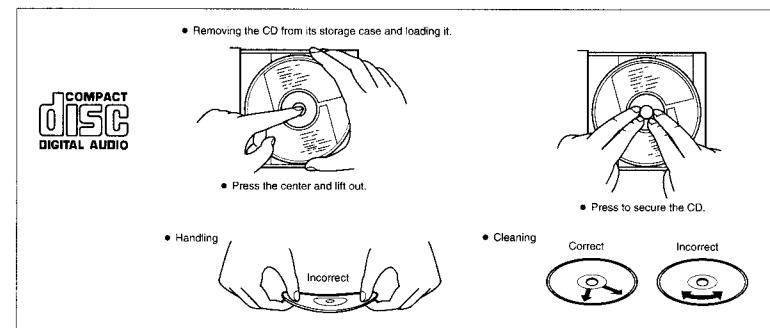
- Do not touch the reflective recorded surface.
- Do not stick or write anything on the label side.
- Do not bend CDs.

3. Storage

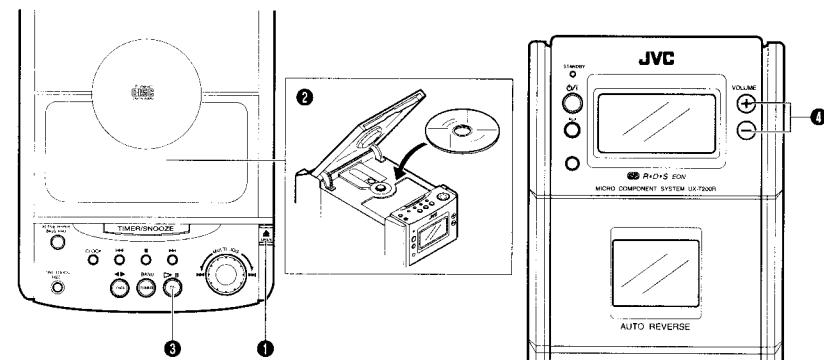
- After removing a CD from the unit, be sure to put it back in its case.
- Do not expose CDs to direct sunlight, high temperatures from a heater, etc., high humidity, or dust.

4. Cleaning CDs

- Before loading a CD, wipe off any dust, dirt or fingerprints with a soft cloth. CDs should be cleaned by wiping radially from the center to the edge.
- Never use thinner, benzine, record cleaner or antistatic spray.

**PLAYING CDs****Playing an entire CD**

The following example of playing an entire CD assumes a CD with 12 tracks and a total playing time of 48 minutes 57 seconds.

Operate in the order shown

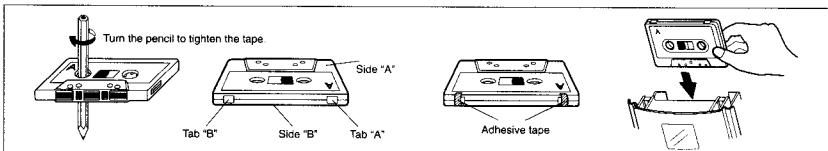
- ① Press to open the CD holder.
- ② Load a CD with the label side facing up and close the CD holder.
- ③ Press to start play. (The power is switched on.)
- ④ Adjust.

- As tracks are played, their track numbers go out one by one.

- 8-cm (3") CDs can be used in this unit without an adapter.

HANDLING CASSETTE TAPES**Cassette tapes**

1. Loose tape may cause trouble. Using a pencil or like object, gently tighten the tape as shown.
2. To prevent recordings from being erased accidentally, remove the tab(s) with a screwdriver, etc. Reseal the slots with adhesive tape to erase and re-record after the tabs have been removed.
3. C-120 cassettes are not recommended because they are prone to malfunction.

**Note:**

If the power is switched off while a tape is running, it may be impossible to remove the cassette. If this happens, switch the power on again before attempting to remove the cassette.

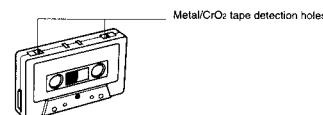
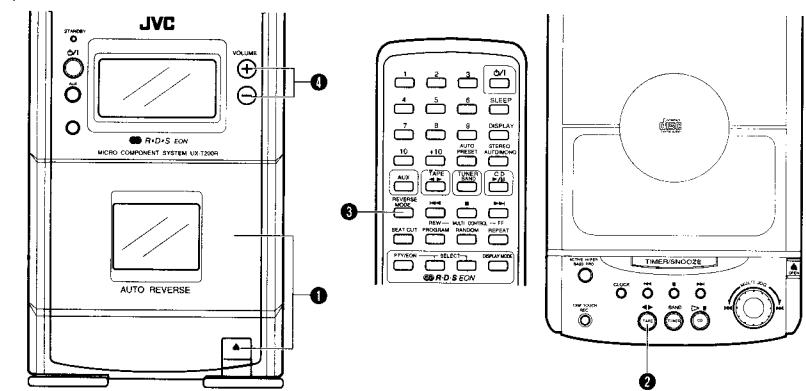
Auto tape select mechanism

This unit has an Auto Tape Select mechanism which distinguishes between different types of tape using detection holes in the cassette. After the type of tape has been detected, bias and equalization suitable for the tape are set.

Cassette loading

1. Press the eject (▲) button to open the cassette holder.
2. Load a cassette as shown.
3. Close the cassette holder by pressing it gently. Listen for the click indicating that the holder is securely shut.

- Cassettes with detection holes:
Metal tape (EO: 70 µs) Type IV
CrO₂ (chrome) tape (EO: 70 µs) Type II
- Cassettes without detection holes:
Normal tape (EO: 120 µs) Type I

**CASSETTE PLAYBACK****Operate in the order shown**

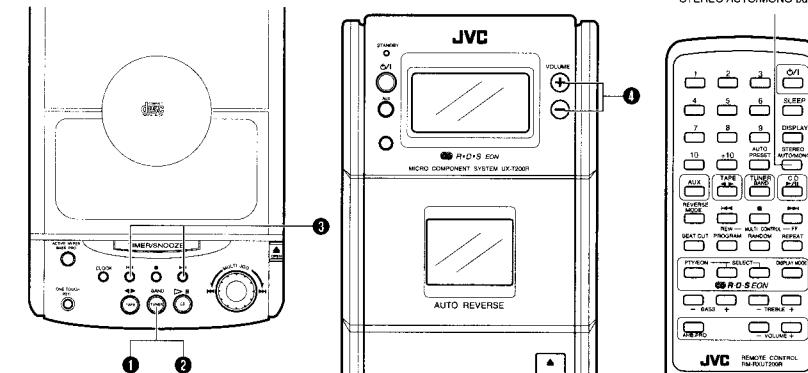
- ① Load a cassette tape.
- ② Press to start playback. (The power is switched on and the TAPE mode is engaged to start tape playback.)
- ③ Select the reverse mode (→/←/→).
- ④ Adjust.

After loading a cassette tape, simply press the TAPE ←→ button. The power is switched on and the tape starts playback. (To select the playback direction, press the TAPE ←→ button. The change in direction can be checked in the tape direction indicator (← or →).)

How to fast-wind tapes

1. Press the TAPE (←→) button (to set TAPE mode).
2. Press the ←→ button.

• A tape can be fast-wound in either tape playback direction, and when it reaches the end of a side, it stops automatically.

RADIO RECEPTION**Operate in the order shown**

- ① Press the TUNER/BAND button.
- The power is switched on and the band and radio frequency will be shown in the display.
- ② Select the band.
- ③ Tune to the required station.
- ④ Adjust.

STEREO AUTO/MONO button (using the remote control unit)**Auto mode:**

Set to this position when listening to or recording an FM stereo broadcast. The STEREO indicator lights when the FM stereo broadcast is received.

MONO:

Set to this position when FM stereo reception is noisy. When another station is tuned in in the MONO mode, the unit automatically enters Auto mode.

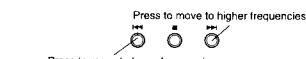
Seek tuning

Press the ← or → button for one second or more. The unit enters the seek tuning mode to tune in the nearest station automatically, so the broadcast can be heard. In AM operation, the frequency moves continuously from the MW to the LW band and vice versa.

Manual tuning

Each time the ← or → button is pressed, the unit steps through the current frequency band. Tuning is done in steps of 50 kHz for FM and 9 kHz for AM (MW/LW).

In AM operation, the tuned frequency moves continuously from the MW (522-1,629 kHz) to the LW (144-288 kHz) band and vice versa.

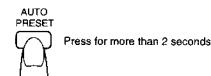
**Notes:**

- When seek tuning to the required station is not possible because the broadcast signal is too weak, press the ← or → button momentarily to perform manual tuning.
- When the power is set to STANDBY, or another mode (TAPE, CD or AUX) is selected, the last tuned frequency is stored in memory. When the power is switched on again and TUNER/BAND button is pressed, the same station will be tuned to.

Auto preset tuning (using the remote control unit)

This function scans the current band, detecting frequencies used to broadcast signals and stores the first 30 FM frequencies and 15 AM (MW/LW) frequencies in memory automatically.

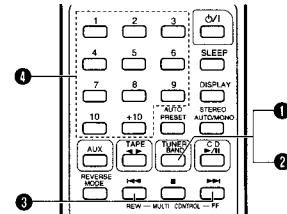
- Press the AUTO PRESET button for more than 2 seconds. The frequencies of stations broadcasting signals can be stored in memory automatically in the order of increasing frequency. (30 stations in FM band and 15 stations in AM (MW/LW) band.)



Presetting stations (using the remote control unit)

30 stations in the FM band and 15 stations in the AM (MW/LW) band can be preset as follows:

- Example: (Presetting an FM station broadcasting at 103.5 MHz to preset button "15")



P - 15 → FM 1035

- ① Press the TUNER/BAND button.
- ② Select the FM band using the TUNER/BAND button.
- ③ Tune to the required station.
- ④ Press preset button "+10", then "5" for more than 2 sec.
(When "15" blinks in the preset station display, the station has been stored.)

- Repeat the above procedure for each of the other stations, using a different preset button each time.
- Repeat the above procedure for the other band.

- To change preset stations
Perform step ④ above after tuning to the required station.

RDS (Radio Data System)

(Using the remote control unit)

Using the RDS (Radio Data System) to Receive FM Stations
RDS allows FM stations to send additional signals with their regular programme signals. For example, the stations send their station names, and information about what type of programmes they broadcast, such as sports or music, etc.

This unit can receive the following types of RDS signals:

PS (Programme Service):
shows commonly known station names.

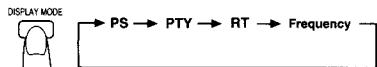
PTY (Programme Type):
shows titles of broadcast programmes.

RT (Radio Text):
shows text messages the station sends.

TA (Traffic Announcement):
shows traffic announcements being broadcast.

What information can RDS signals provide?
The display shows RDS signal information that the station sends.

To show the RDS signals on the display:
Press the DISPLAY MODE button while listening to an FM station.
Each time you press the button, the display changes to show information in the following order:



Notes:

- The previously stored station is erased when a new station is stored, because the new station's frequency replaces the previous frequency in memory.
- When listening to an AM (MW/LW) broadcast, noise may be heard if the remote control unit is used.

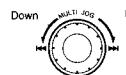
• All preset stations will be erased when the power cord is disconnected or a power failure occurs for more than 24 hours. In such cases, store the stations again.

Preset tuning

The stations must be preset before this operation can be performed.

Using the main unit

- ① Press the TUNER/BAND button.
- ② Select the band using the TUNER/BAND button.
- ③ To select the required preset station, turn the MULTI JOG dial.



Using the remote control unit

- ① Press the TUNER/BAND button.
- ② Select the band using the TUNER/BAND button.
- ③ Press the required preset station buttons (No. 1 – No. 10 and +10).
• The preset station number and frequency corresponding to the button pressed are shown.

Using the antennas (see page 5)

FM: Connect the provided FM wire antenna.
AM (MW/LW): Adjust the position of AM (MW/LW) loop antenna.

On characters displayed

When the display shows PS, PTY or RT signals:

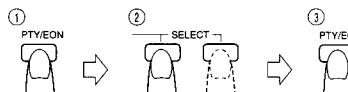
- The display shows upper case letters only.
- The display cannot show accented letters. For example, "A" may represent accented "A's" like "À, Á, Â, Ã and Ä".

A	À, Á, Â, Ã,	K	K	U	Ù, Ú,	O	Ø	*	'	<
B	B	L	L	V	V	I	I	+	+	>
C	Ç, Ç	M	M	W	W	Z	Z	-	=	=
D	D, Đ	N	N, Ñ	X	X	3	3	,	\	\
E	É, È,	O	O, Ó, Ò,	Y	Y	4	4	,	,	,
F	F	P	P	Z	Z, Ž, Ž	5	5	/		
G	G	Q	Q			6	6	--	--	--
H	H	R	R, Ñ, Ñ			7	7	--	--	--
I	I, Í, Ì,	S	S, Ñ, Ñ			8	8	--	--	--
J	J	T	T			9	9	!	!	!

To search for a programme by PTY codes

One of the advantages of the RDS service is that you can locate a particular kind of programme by specifying the PTY codes.

To search for a programme using PTY or TA codes:



- ① Press the PTY button once while listening to an FM station.

The display alternates between "PTY" and "SELECT".

- ② Select the PTY code using the SELECT buttons within 10 seconds.
Each time you press the button, the display shows a category in the following order:

NEWS ↔ AFFAIRS ↔ INFO ↔ SPORT ↔ EDUCATE ↔ DRAMA ↔ CULTURE ↔ SCIENCE ↔ VARIED ↔ POP M ↔ ROCK M ↔ M.O.R.M ↔ LIGHT M ↔ CLASSICS ↔ OTHER M ↔ TRAFFIC ↔ NEWS

- ③ Press the PTY button within 10 seconds again.

While searching, the display alternates between "SEARCH" and the selected PTY code.

The unit searches 30 preset stations and stops when it finds a station of the category you have selected, then tunes into that station.

To continue searching after the first stop: press the PTY button again while the display indications blink.
If no programme is found, "NOT FOUND" appears on the display.

To stop searching at any time during the process:
Using any tuner operating buttons and controls stops search operation.

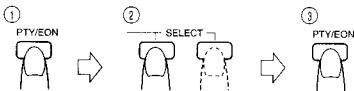
Descriptions of the PTY Codes

NEWS:	News
AFFAIRS:	Topical programme expanding on the current news or affairs
INFO:	Programmes on medical service, weather forecasts, etc.
SPORT:	Sports events
EDUCATE:	Educational programmes
DRAMA:	Radio plays
CULTURE:	Programmes on national or regional culture
SCIENCE:	Programmes on natural sciences and technology
VARIED:	Other programmes like comedies or ceremonies
POP M:	Pop music
ROCK M:	Rock music
M.O.R.M:	Middle-of-the-road music (usually called "easy listening")
LIGHT M:	Light music
CLASSICS:	Classical music
OTHER M:	Other music
ALARM:	Emergency broadcasts
TRAFFIC:	Broadcasts which carry traffic announcements
NONE:	None (this cannot be searched.)

To temporarily switch to a broadcast programme of your choice
EON (Enhanced Other Networks) is another convenient RDS service that allows this unit to switch temporarily to a broadcast programme of your choice (NEWS, TA or INFO) from the currently selected station, except if you are listening to a non-RDS station (all AM (MW/LW) stations or some FM stations).

- If an FM station does not broadcast EON information, EON cannot be activated.

To select a programme type



- ① Press the EON button twice while listening to an FM station. The display alternates between "EON" and "SELECT".
- ② Select the programme type with the SELECT buttons within 10 seconds.

The display shows a programme type in the following order:



TA : Traffic Announcement

NEWS : News

INFO : Programmes on medical service, weather forecast, etc.

OFF : EON off

- ③ Press the EON button within 10 seconds again to set the selected programme type. The selected programme type indicator lights up on the display, and the unit enters EON standby mode.

- The EON indicator lights up when tuned to a station which provides EON information.

Case 1: If there is no station broadcasting the type of programme you have selected

The broadcast station being currently heard will continue to be heard.

When a station starts broadcasting the programme you have selected, this unit automatically switches to the station. The programme type (TA, NEWS or INFO) indicator starts blinking.

When the programme is over, this unit goes back to the currently selected station, but still remains in EON standby mode.

Case 2: If there is a station broadcasting the type of programme you have selected

This unit tunes to the station broadcasting the programme. The programme type (TA, NEWS or INFO) indicator starts blinking.

When the programme is over, this unit goes back to the currently selected station, but remains in EON standby mode.

Notes:

- If the EON is in standby mode and the function (CD, TAPE, AUX) switch is changed or the power is switched off, then the EON mode will be released. When the band is set to AM (MW/LW), the EON is not activated. When the band is set to FM again, the EON will be set to standby mode.
- When the EON is being operated (i.e. the selected programme type is being received from the broadcast station) and if the DISPLAY MODE, \blacktriangleleft , \triangleright button or MULTI JOG dial is operated, the station will not switch back to the current selected station even after the programme ends. The programme type indicator remains in the display, indicating that the EON is in standby mode.
- When the EON is in standby mode and a radio broadcast is being recorded, be careful because the EON may be activated and a different programme than the intended one may be recorded. When the EON mode is not required, release the EON mode.
- When the alarm signal is detected by EON, the station broadcasting the alarm is received with priority. "ALARM" is not displayed.

Caution:

When the sound alternates intermittently between the station tuned in by the EON function and the current selected station, cancel the EON mode. This does not constitute malfunction of the unit.

RECORDING



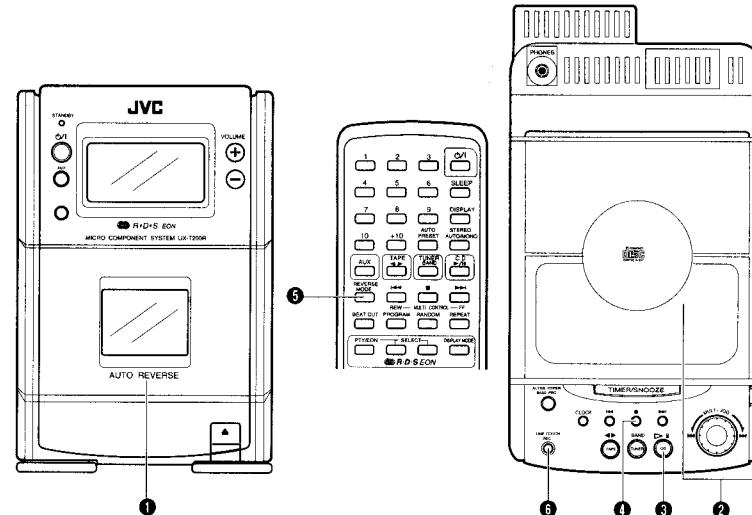
- During recording, the ALC (Automatic Level Control) circuit automatically optimizes the recording level, so manual recording level adjustment is unnecessary.
- Check that the safety tab on the cassette tape is not broken off.

Note:
This unit has recording characteristics suitable for normal and CrO₂ tapes. Normal and CrO₂ tapes have different characteristics from metal tapes.

Synchronized recording with the CD player

- In this system, the CD player starts play when the cassette deck enters the recording mode.

Operate in the order shown



- ① Load a cassette with side A facing out. (Wind past the tape leader before starting recording.)

- ② Load a CD and close the CD holder.

- ③ Set to the CD mode.

- ④ Press the ■ button to stop mode.

- ⑤ Select the required reverse mode (\blacktriangleleft or \triangleright).

- When programmed play is required, program the required tracks using the remote control. (See page 14.)

- Select tracks with a total playing time which does not exceed the tape length.

- ⑥ Press the ONE TOUCH REC button; synchronized recording will start. (The recording indicator lights up.)

- Recording starts in the forward direction and CD play starts automatically.

- After the CD player has played the entire CD or programmed tracks, the deck stops automatically.

- Non-recorded sections of approx. 4 seconds are automatically left between tunes.

- To stop recording in the middle, press the ■ button. The cassette deck also stops after 4 seconds.

Note:
During CD synchro recording, the \blacktriangleleft , \triangleright , SEARCH (\blacktriangleleft , \triangleright) buttons and MULTI JOG dial do not function.

When non-recorded section between tunes is not required ...

- ① Press the \blacktriangleleft button twice. The CD player enters the pause mode.

- ② Press the ONE TOUCH REC button to start recording.

Note:

- Depending on the CD used, non-recorded sections of different lengths may be left between tunes.

CD complete recording function (Synchro recording mode only)

If the tape is reversed while a CD is being played, recording will be done on the reverse side of the tape as follows:

- When less than 12 seconds of the last tune on the forward side of the tape have been recorded, recording on the other side of the tape will start from the beginning of the previous track.

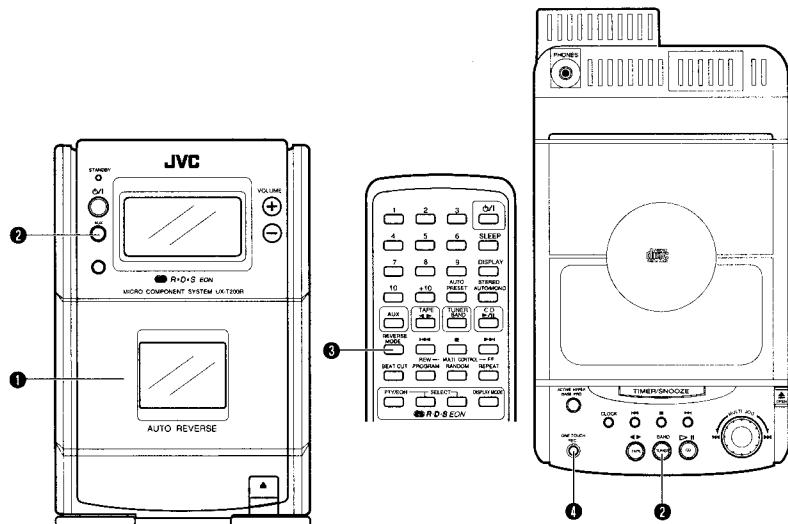
- When more than 12 seconds of the last tune on the forward side of the tape have been recorded, recording on the other side of the tape will start from the beginning of the current track.

To record one track

Play the track to be recorded. Then pressing the ONE TOUCH REC button locates the beginning of the track and enter the one track recording mode. After the recording is finished, the CD player and cassette deck both stop.

Recording from the radio or an external source connected to the AUX terminals

Operate in the order shown



- ① Load a cassette with side A facing out.
(Wind past the tape leader before starting recording.)
- ② Select the source to be recorded.
TUNER: Press the TUNER/BAND button. Tune to the required station.
AUX: Press the AUX button.
- ③ Select the required reverse mode (↔ or ↔).
- ④ Press the ONE TOUCH REC button.

BEAT CUT button (using the remote control unit)

When recording an AM broadcast, beats may be produced which are not heard when listening to the broadcast. In such case, set this button after setting the deck to the record mode so that the beats are eliminated. Normally set this button to "CUT-1".



CUT - 1 → CUT - 2 → CUT - 3 → CUT - 4

Erasing

A recorded tape can be erased by recording new material over the previous material.

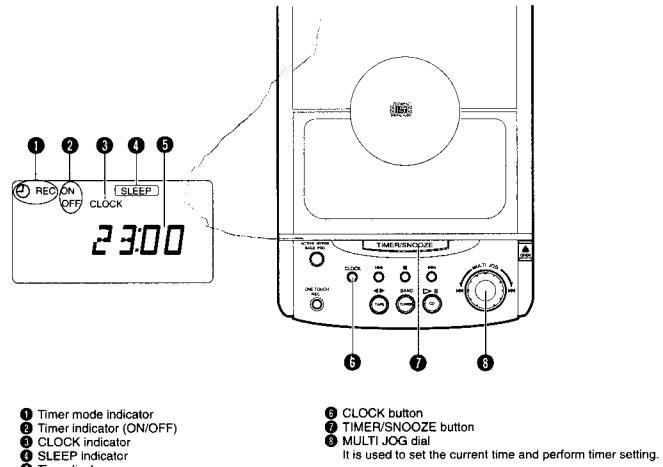
To erase a tape without making a new recording...

1. Press the TAPE (◀▶) button to set to the TAPE mode.
2. Press the ■ button.
3. Insert the cassette with the side to be erased facing out.
4. Press the ONE TOUCH REC button.

It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

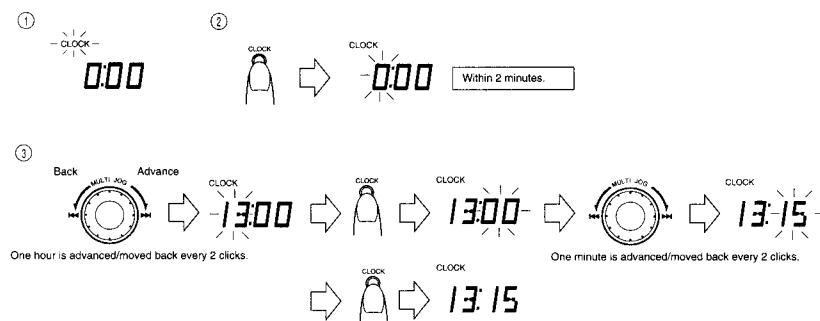
CLOCK ADJUSTMENT

Names of parts in the clock/timer section, and their functions:



Setting the current time (when this unit is used for the first time)

(Example: To set the clock to 13:15.)



- ① Connect the AC power cord; "CLOCK" will blink in the display.
- ② Press the CLOCK button for 2 seconds or more.
- ③ Set to 13:15 using the MULTI JOG dial and CLOCK button.

- Setting the current time.
Use the time signal of television and radio broadcasts.
When adjusting the clock, follow steps ② - ③.

Notes:

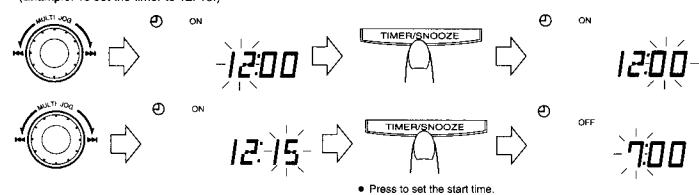
- Before performing timer recording or playback, it is necessary to set the current time.
- It is recommended to set the current time with the *①* button set to STANDBY so that the current display mode is maintained.
- When the power cord is plugged in again after being disconnected or power is restored after a power failure, "CLOCK" will blink in the display. Set the current time again.

TIMER OPERATIONS**Setting the timer**

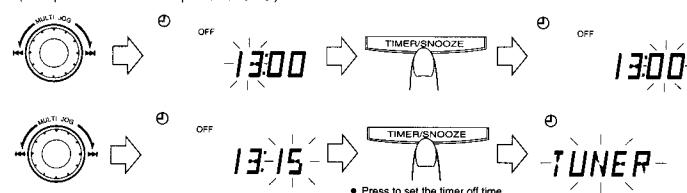
- The current time must be set before the timer can be used.
- Press the TIMER/SNOOZE button for 2 seconds or more.



- Set the start time.
(Example: To set the timer to 12:15.)



- Set the stop time.
(Example: To set the timer stop timer to 13:15.)

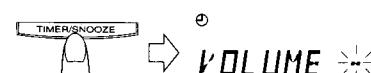


- Select the TIMER mode

- The selected TIMER mode is shown in the display.



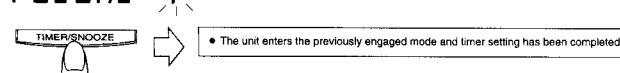
When the MULTI JOG dial is turned to select the timer mode, the mode changes from TUNER (timer reception of a broadcast), to TUNER/REC (timer recording of a broadcast), to CD (timer play of a CD), to TAPE (timer playback of a tape), in forward or reverse direction.



- Set the volume.



This shows when volume level 1 is selected.



- The selected volume is set.

- When the volume setting is set to "VOLUME -" (volume level is not specified), the timer playback volume is at the level used before setting the timer.

To confirm the timer setting

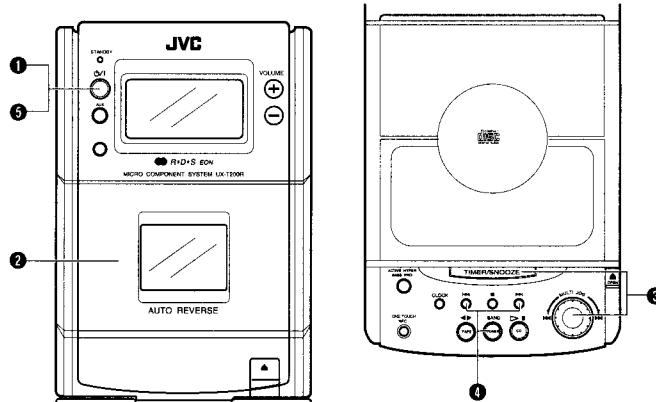
- When (①) is displayed.
Press the TIMER/SNOOZE button for more than 2 seconds. (①) disappears.
- Press the TIMER/SNOOZE button for more than 2 seconds once again.
Then each time the TIMER/SNOOZE button is pressed, the timer setting will be confirmed. When the previous function mode is restored, showing that the timer setting has been completed.

Note:

- When the timer is set incorrectly or the correct mode is not selected, perform "Setting the timer" from the beginning.

Timer recording of broadcast

- The current time must be set before the timer can be used.
- Make sure that the safety tabs of the cassette have not been broken off.

Operations

- Set the ① button to ON.
- Load a cassette.
- Insert the cassette with the side to be recorded facing out.
- Select the required reverse mode. (or)
- Set the timer. (Refer to "Setting the timer" on page 23.)
- Set the timer about a minute before the broadcast to be recorded is scheduled to start.
- Tune to the station to be recorded. (Refer to page 16.)
- Set the ① button to STANDBY.

- Timer recording will start at timer start time and the power will be switched off at timer stop time. (The timer mode is then released.)

- To cancel timer operation
Press the TIMER/SNOOZE button for more than 2 seconds so that the timer mode indicator (①) goes out.

If you do this, timer recording will not start at the timer start time.

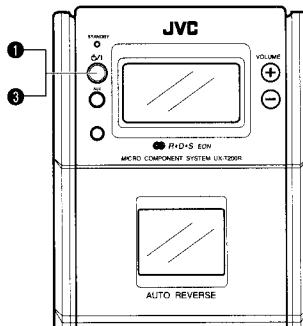
Notes:

Once the timer has been set, the start and stop times, etc., are stored in memory. When timer recording or playback is required at different times, the timer must be set again.

- After setting the timer start and stop times, check that the tuner is tuned to the required frequency.
- When the power cord is disconnected or there is a power failure, timer settings will be erased from memory. If this happens, set the current time and perform the timer setting again.

Timer playback

- Timer playback of tapes, broadcasts and CDs is possible.

Operations

- ① Set the \odot/I button to ON.
- ② Set the timer. (Refer to "Setting the timer" on page 23.)

Source sound	Timer mode	Operations
CD play	CD	Load a disc.
Tape playback	TAPE	Load a cassette tape.
Broadcast	TUNER	Tune to the required station.

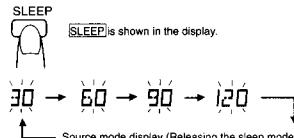
- ③ Set the \odot/I button to STANDBY.

- Timer playback will start at the timer start time and the power will be switched off at the timer stop time.
- The unit remains in the same timer mode even after the power is switched off. The same timer function will repeat at the same time on the following day.
- When the power is switched on, it is possible to fade in the sound from volume level 0 (zero) to the preset volume.

Sleep timer operations (using the remote control unit)

A. Use this when you want to fall asleep while listening to a tape, broadcast or CD.

- ① Set to the required source and tune (broadcast) or play back (CD or tape).
- ② Press the SLEEP button to set the sleep time.



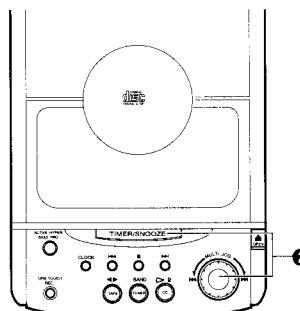
- The sleep timer operation will start and the power will be switched off after the specific time.

Checking the sleep time

When the SLEEP button is pressed, the remaining sleep time is displayed. If it is pressed again, a new sleep time can be set.

To cancel the sleep timer operation

Press the \odot/I button to switch the power off or press the SLEEP button until the sleep time indicator disappears.

**To cancel timer operation**

Press the TIMER/SNOOZE button for more than 2 seconds so that the timer mode indicator (\ominus) goes out.

Notes:

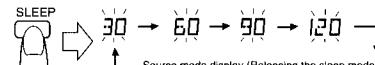
- When the volume setting is set to "VOLUME -" (volume level is not specified), the timer playback volume is set to the level used before setting the timer.
- To stop during timer playback, press the \odot/I button to switch the unit off.

To get an extra 5 minutes of sleep...

When timer playback starts, press the TIMER/SNOOZE button. The power is switched off and timer playback restarts after 5 minutes (snooze function).

**B. To fall asleep while listening to a tape, broadcast or CD and to perform timer playback the following morning**

- ① Set the timer. (Refer to "Setting the timer" on page 23.)
- ② Set to the required source (broadcast, tape or CD).
- ③ Press the SLEEP button to set the sleep time.



- Any source can be selected for sleep timer operation and timer playback. For example:
 - CD play for sleep timer operation and broadcast reception for timer playback.
 - Tape playback for sleep timer operation and CD play for timer playback.

However, when broadcast reception is selected for both sleep timer operation and timer playback, the station you heard at night will be tuned to the following morning.

MAINTENANCE**Cleaning is important!**

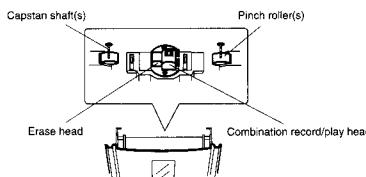
When the tape is running, magnetic powder and dust naturally accumulate on the heads, capstan and pinch roller. When they become too dirty...

- Sound quality deteriorates.
- The output sound level drops.
- Previously recorded tape is not completely erased.
- Recording is not performed satisfactorily.

 Therefore, you should clean the heads, etc. after every 10 hours of use for optimal recording conditions.

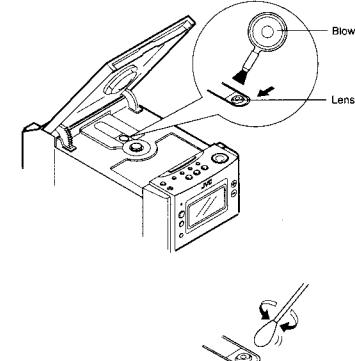
Cleaning the heads, capstan and pinch roller

Open the cassette holder.
Clean the heads, pinch roller and capstan.
For effective cleaning, use a cleaning kit available from an audio store.
After cleaning, be sure that the cleaning fluid has dried completely before loading a cassette.

**Cleaning the lens**

If the lens in the CD pickup is dirty, dropout, etc., could degrade sound. Open the CD holder and clean the lens as shown.

- Use a blower (available from a camera store) to blow dust off the lens.
- If there are fingerprints, etc. on the lens, gently wipe clean with a cotton swab.

**Cautions:**

1. Keep magnets and metallic objects away from the head.
If the head becomes magnetized, noise will increase and the sound will deteriorate. Demagnetize the head every 20-30 hours of use with a head eraser (available from an audio store). (When demagnetizing the head, the \odot/I button should be set to STANDBY.)
2. Do not use anything other than alcohol for cleaning.
Thinner and benzine will damage the rubber pinch roller.

TROUBLESHOOTING**What appears to be trouble is not always serious. First make sure....**

- Power cannot be turned on.
- Is the power cord unplugged?
- No sound from the speakers.
- Are headphones connected?

CD Player Section

- The CD player does not play.
- Is the CD upside down?
- Is the CD dirty?
- A certain portion of the CD does not play correctly.
- Is the CD scratched?

Cassette Deck Section

- Playback sound is at a very low level.
- Is the head dirty?
- The ONE TOUCH REC button does not function.
- Have the safety tabs of the cassette been broken off?

Tuner Section

- Reception is noisy.
- Try adjusting the antenna.

Timer Section

- Timer operation does not start.
- Is the current time set correctly?
- Is the timer mode (\ominus) displayed?

Remote Control

- Remote control is impossible.
- Are the batteries in the remote control exhausted?
- Is the remote sensor section exposed to bright light (direct sunlight, etc.)?

Note:

Before making an important recording, be sure to make a test recording first to check that the deck, etc. is working correctly.

•When the above remedies do not help

Many operations of this unit are performed by the control of a microprocessor. If none of the buttons function, unplug the power cord, wait for a while, then plug it back in. Reset the correct values for the clock and timer.

SPECIFICATIONS**CD player section**

Type : Compact disc player
 Signal detection : Non-contact optical pickup
 Number of channels : 2 channels
 Frequency response : 20 Hz - 20,000 Hz
 Signal-to-noise ratio : 90 dB
 Wow & flutter : Less than measurable limit

Radio section

Frequency range : FM 87.5-108 MHz
 AM (MW) : 529 kHz
 AM (LW) : 144-268 kHz
 Antennas : Loop antenna for AM (MW/LW)
 External antenna terminal for FM (75 Ω)

Tape deck section

Track system : 4-track 2-channel stereo
 Motor : Electronic governor DC motor for capstan
 Heads : Combination head for recording/playback, 2 gap ferrite
 Head for erasure (Combination head)
 Frequency response : 60-15,000 Hz (with CrO₂ tape)
 Wow & flutter : 0.15% (VRMS)
 Fast wind time : Approx. 130 sec (C-60 cassette)

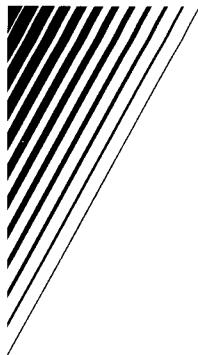
Speaker Section (each unit)

Speakers : 8 cm (4 Ω)
 Dimensions : 131 (W) x 203 (H) x 194 (D) mm
 Weight : Approx. 1.6 kg

General

Power output : 28 W (14 W + 14 W) at 4 Ω (Max.)
 20 W (10 W + 10 W) at 4 Ω (10% THD)
 Input terminals : AUX IN (300 mV/47 kΩ)
 Output terminals : PHONES (line level: 0-15 mW/ch, 32 Ω, Matching impedance 16 Ω - 1 kΩ)
 Power requirements : AC 230 V, 50 Hz
 Ext. DC 12V (car battery via optional CA-R120E car adapter)
 Power consumption : 35 W (with \odot/\parallel button ON)
 2.8 W (with \odot/\parallel button STANDBY)
 Dimensions : 404 (W) x 209 (H) x 270 (D) mm, including knobs
 Weight : Approx. 6.5 kg
 Accessories provided : Power cord x 1
 Remote control unit (RM-RXUT200R) x 1
 "R6/AA (15F") batteries x 2 (for the remote control)
 FM wire antenna x 1
 Loop antenna stand x 1

Design and specifications are subject to change without notice.



JVC
VICTOR COMPANY OF JAPAN, LIMITED



4. Location of Main Parts

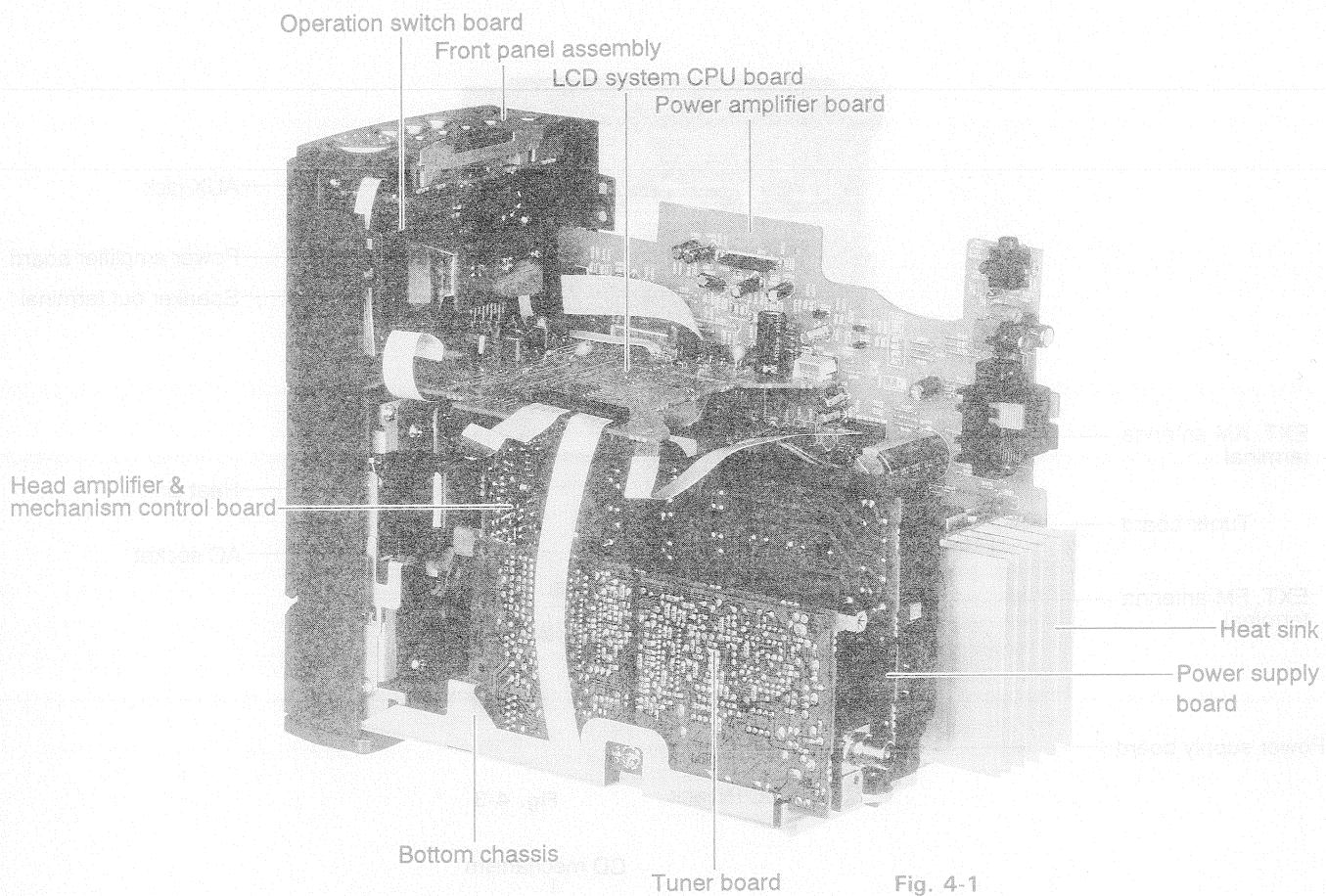


Fig. 4-1

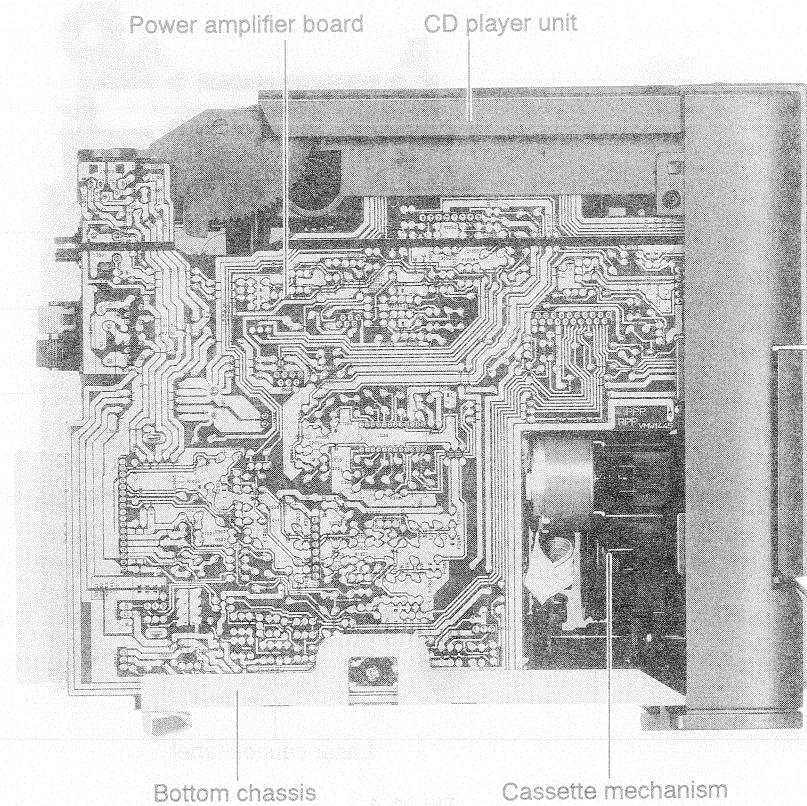


Fig. 4-2

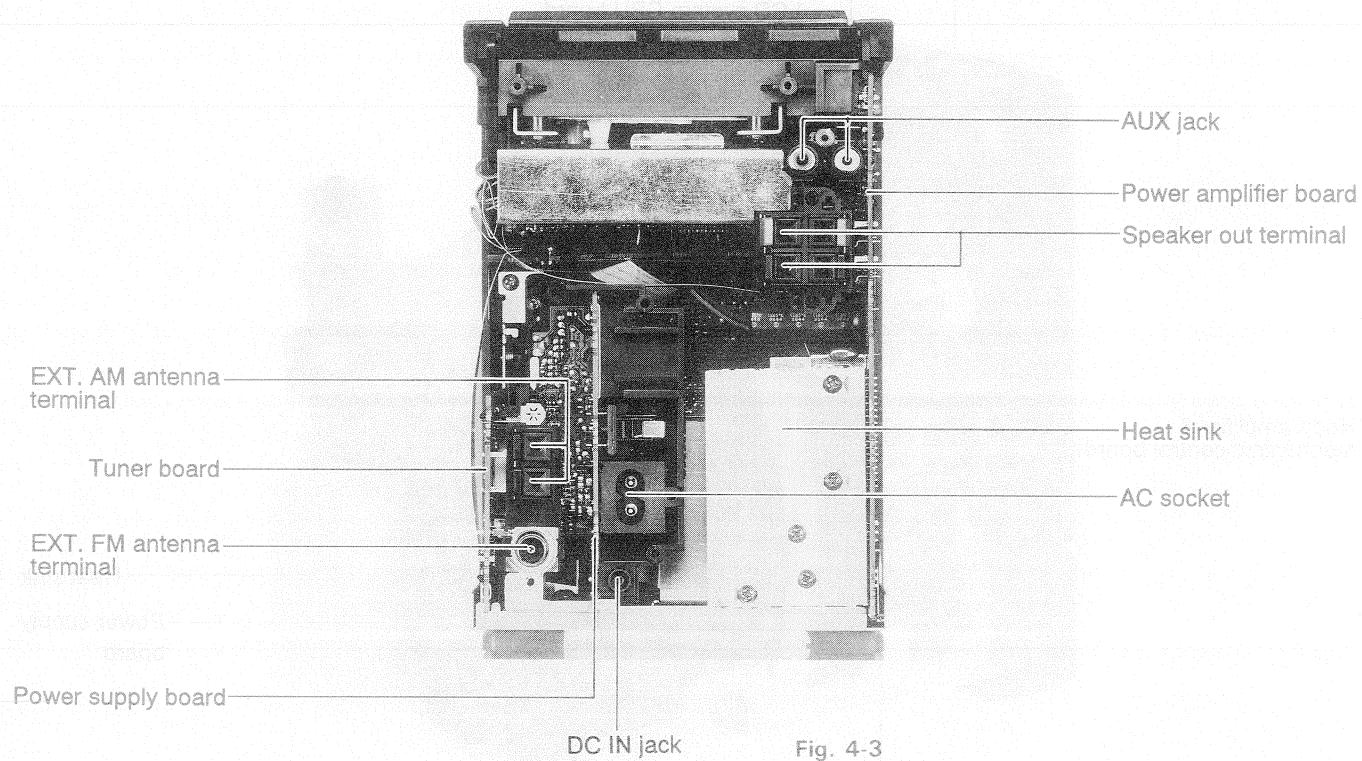


Fig. 4-3

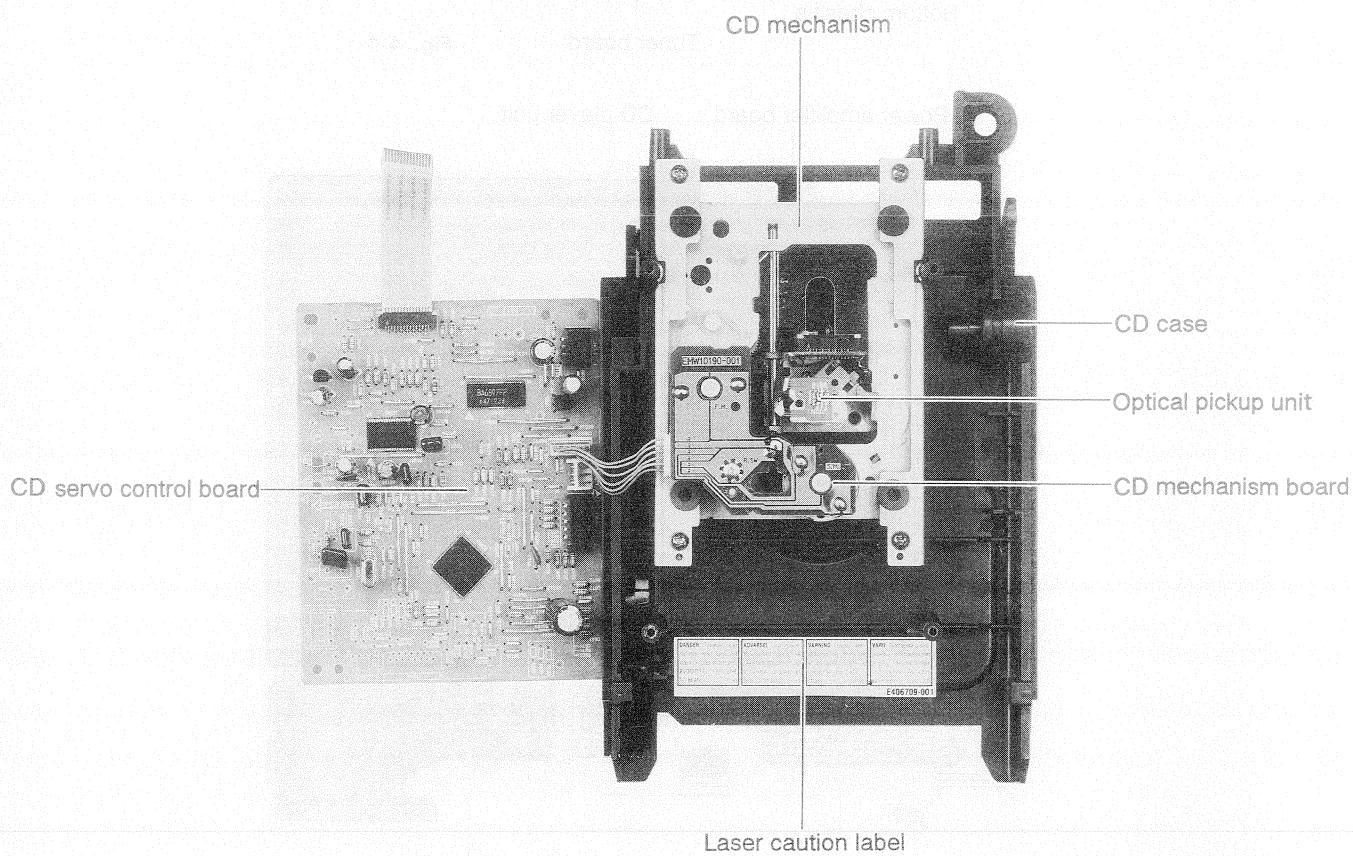


Fig. 4-4

5. Removal of Main Parts

■ Removing the rear panel

(See Figs. 5-1 and 5-2)

1. From behind the body, remove the seven screws ① retaining the rear panel (See Fig. 5-1).
2. After turning the body upside down, remove the two screws ② retaining the rear panel (See Fig. 5-2).
3. Take out the rear panel from behind the body.

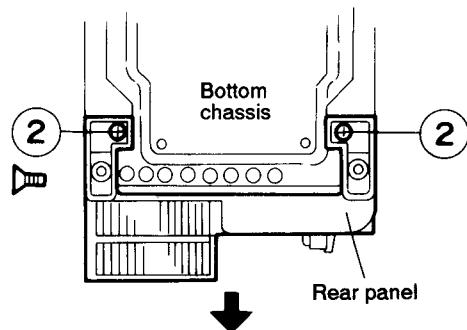


Fig. 5-2

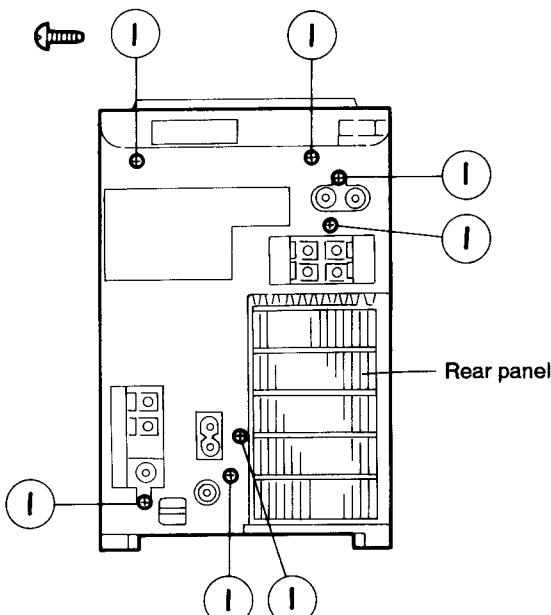


Fig. 5-1

■ Removing the side panels (L and R)

(See Figs. 5-3~5-6)

1. After turning the body upside down, remove the two screws ③ retaining the front cabinet assembly (See Fig. 5-3).
2. After turning the body back to its initial position, open the CD door while pressing the upper [OPEN/CLOSE] button (See Fig. 5-4).
3. While moving the side panel (L) in the arrow direction, remove the panel from the left side of the body (See Fig. 5-5).
4. While moving the side panel (R) in the arrow direction, remove this panel from the right side of the body (See Fig. 5-6).

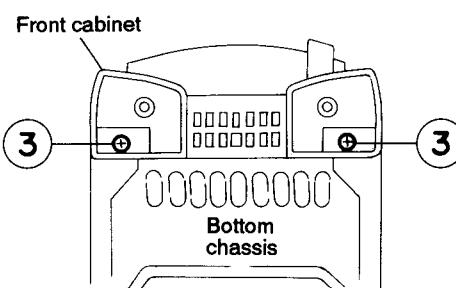


Fig. 5-3

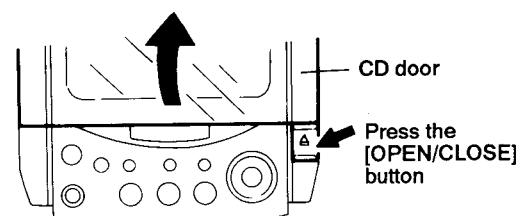


Fig. 5-4

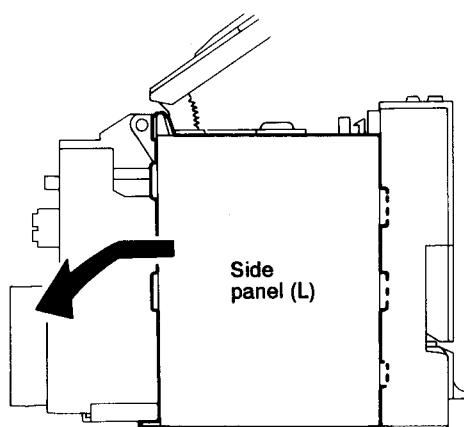


Fig. 5-5

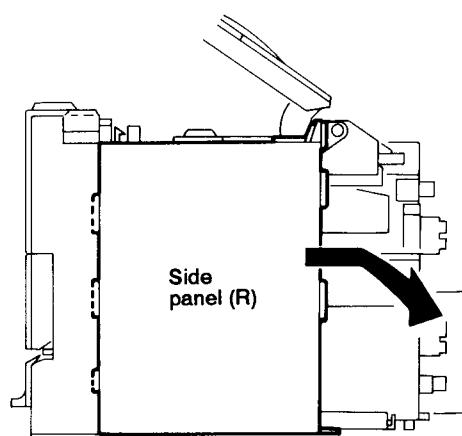


Fig. 5-6

■ Removing the CD player unit

(See Figs. 5-7 and 5-8)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. From the connector CN603 on the CD servo control P. C. board, disconnect the card wire outgoing from the connector CN304 on the power amplifier P. C. board (See Fig. 5-7).
4. Disengage the left and right engagements ④ and ⑤ fixing the CD player unit by using a minus screw driver, etc. (See Figs. 5-7 and 5-8).

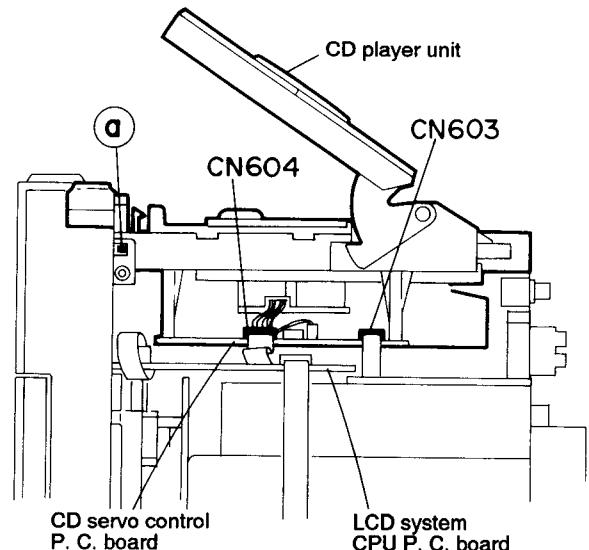


Fig. 5-7

■ Removing the power amplifier P. C. board and heat sink

(See Figs. 5-9 and 5-10)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the five screws ④ and ⑤ retaining the heat sink (See Fig. 5-9).
5. From the connector CN303 on the power amplifier P. C. board, disconnect the card wire outgoing from the connector CN34 on the head amplifier & mechanism control P. C. board (See Fig. 5-9).
6. From the connector CN901 on the power supply board, disconnect the connector wire outgoing from the connector W306 on the power amplifier P. C. board (See Fig. 5-9).
7. Remove the one screw ⑥ retaining the power amplifier P. C. board (See Fig. 5-10).
8. Remove the power amplifier P. C. board from the two connectors CN711 and CN712 on the LCD system CPU P. C. board (See Fig. 5-9).
9. After removing the power amplifier P. C. board from the key way ⑦ on the bottom chassis, take this P. C. board out while raising it in the arrow direction (See Fig. 5-10).

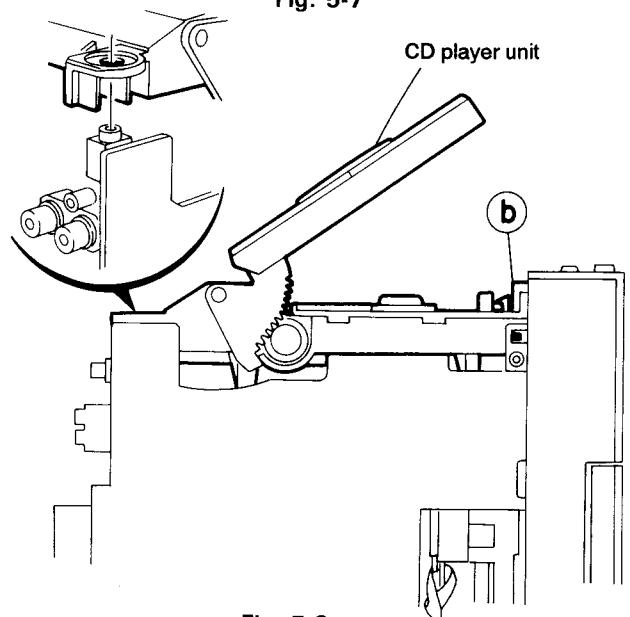


Fig. 5-8

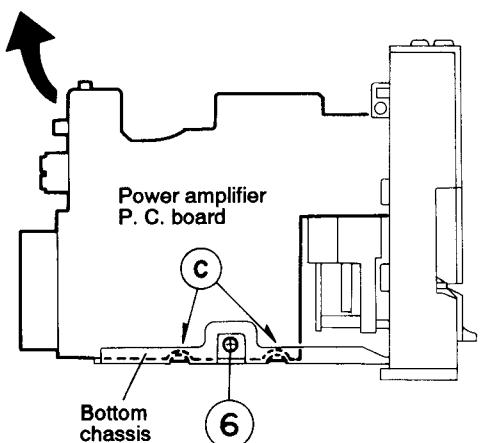


Fig. 5-10

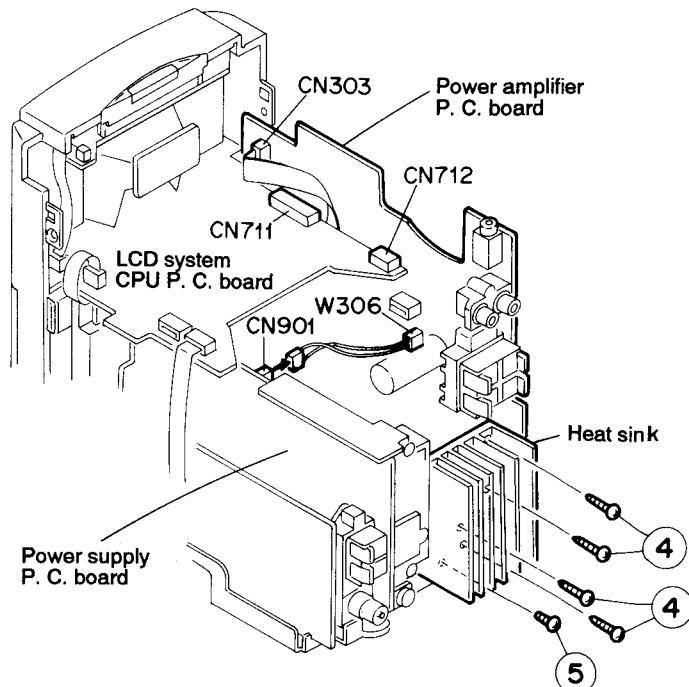


Fig. 5-9

■ Removing the tuner P. C. board (See Fig. 5-11)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. From the right side of the body, remove the one screw ⑦ retaining the tuner P. C. board.
5. From the connector CN1 on the tuner P. C. board, disconnect the card wire outgoing from the connector CN701 on the LCD system CPU P. C. board.

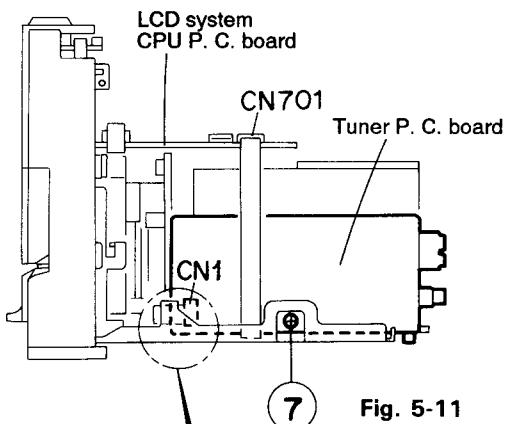


Fig. 5-11

■ Removing the front panel assembly (See Fig. 5-12)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the power amplifier assembly.
5. From the bottom of the body, disengage the engagement ⑧ fixing the front panel assembly in Fig. 5-12 while pressing it with a minus screw driver, etc.

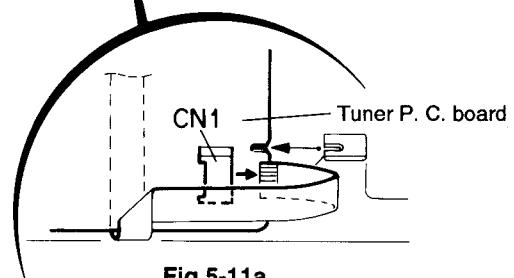


Fig. 5-11a

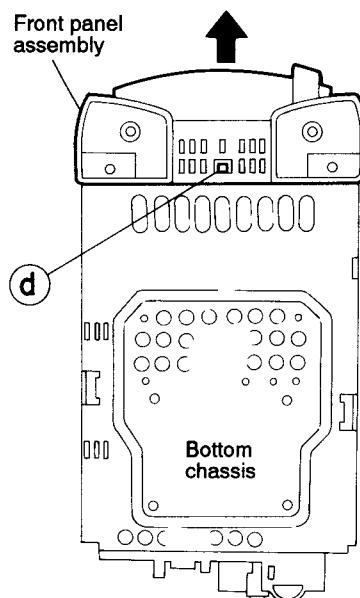


Fig. 5-12

■ Removing the power transformer and power supply P. C. board (See Fig. 5-13)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the power amplifier P. C. board and heat sink.
5. Remove the tuner P. C. board.
6. Remove the four screws ⑧ retaining the power transformer and power supply P. C. board and the one screw ⑨ retaining the jack holder.

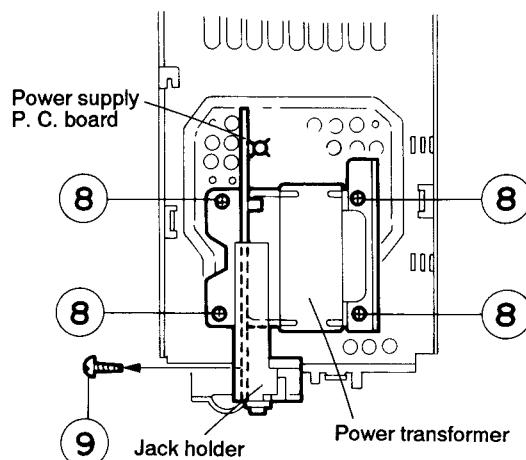


Fig. 5-13

■ Removing the cassette mechanism unit

(See Fig. 5-14)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the power amplifier P. C. board.
5. Remove the front panel assembly.
6. From inside the front panel assembly, remove the four screws ⑨ and ⑩ retaining the cassette mechanism unit.
7. From the connector CN33 on the head amplifier & mechanism control P. C. board, disconnect the card wire outgoing from the connector CN 731 on the LCD system CPU P. C. board.

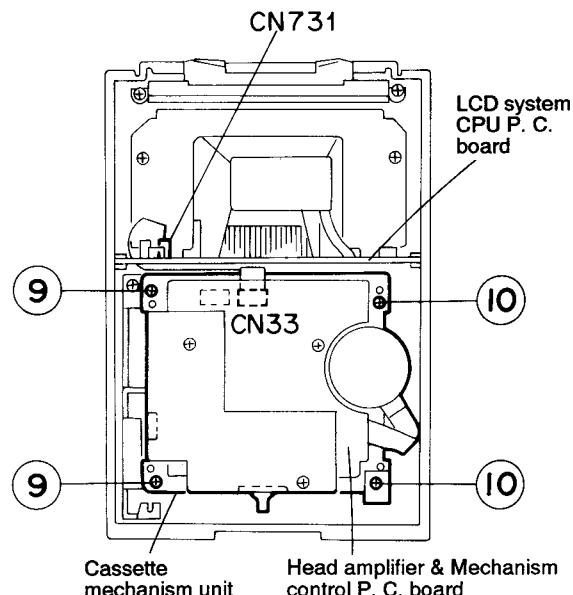


Fig. 5-14

■ Removing the function switch P. C. board and LCD system CPU P. C. board

(See Figs. 5-15 and 5-16)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the front panel assembly.
5. Remove the cassette mechanism unit.
6. From inside the front panel assembly, remove the two screws ⑪ retaining the operating switch P. C. board.
7. From the connector CN782 on the LCD system CPU P. C. board, disconnect the connector wire outgoing from the connector CN802 on the operating switch P. C. board.
8. While sliding the two engagements ⑫ fixing the LCD system CPU P. C. board, pull out this P. C. board.
9. After disconnecting the connector CN801 on the function switch P. C. board from the connector CN781 on the LCD system CPU P. C. board, remove the respective P. C. boards while pulling them upward.

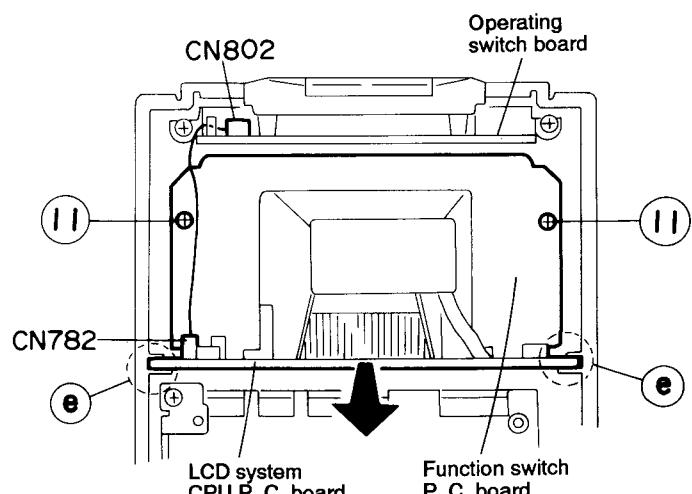


Fig. 5-15

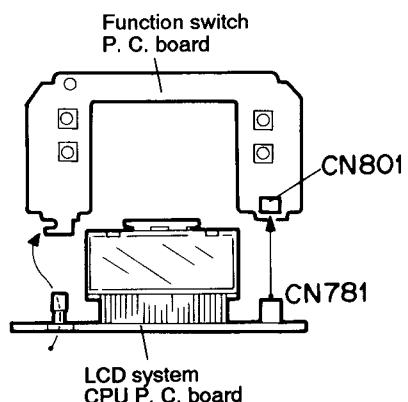


Fig. 5-16

■ Removing the operating switch P. C. board

(See Figs. 5-17 and 5-18)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. Remove the front panel assembly.
5. Remove the cassette mechanism unit.
6. Remove the front panel assembly.
7. Remove the LCD system CPU P. C. board.
8. Remove the two screws ⑫ retaining the operating switch P. C. board.
9. Remove the [MULTI-JOG] button.
10. Remove the [VOLUME] and [POWER/AUX] buttons.
11. Take out the standby LED lens.
12. After removing the four pawls ⑬ fixing the operating switch P. C. board, remove the switch while pulling it in the arrow direction.
13. Remove the two screws ⑭ retaining the operating switch P. C. board.
14. Remove the six pawls ⑮ fixing the operating switch P. C. board.

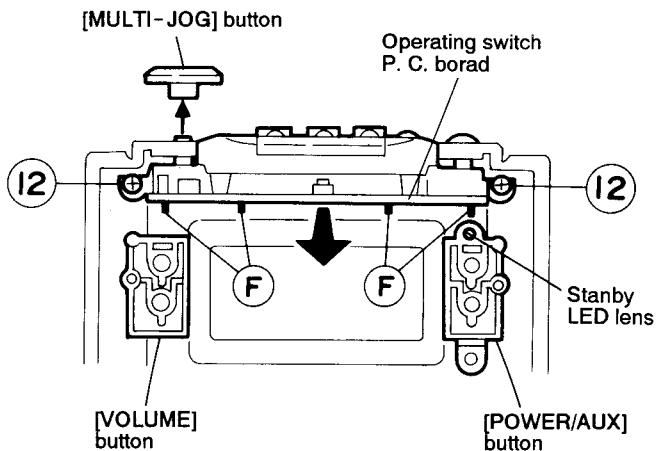


Fig. 5-17

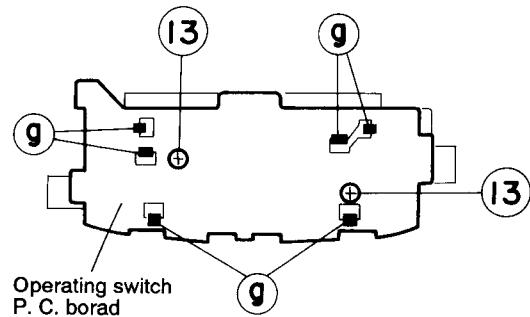


Fig. 5-18

« Cassette Mechanism Section »

■ Removing the Playback/Recording & Eraser Head

1. While shifting the trigger arms seen on the right side of the head mount in the arrow direction, turn the flywheel R in counterclockwise direction until the head mount has gone out with a click (See Fig. 5-19).
2. When the flywheel R is rotated in counterclockwise direction, the playback/Recording & eraser head will be turned in counterclockwise direction from the position in Fig. 5-20 to that in Fig. 5-21.
3. At this position, disconnect the flexible P.C. board (outgoing from the playback/Recording & eraser head) from the connector CN31 on the head amplifier & mechanism control P.C. board.
4. After dismounting the FPC holder, remove the flexible P.C. board.
5. Remove the flexible P.C. board from the chassis base.
6. Remove the spring ① from behind the playback/Recording & eraser head.
7. Loosen the reversing azimuth screw retaining the playback/Recording & eraser head.
8. Take out the playback/Recording & eraser head from the front of the head mount.
9. The Playback/Recording & eraser head should also be removed similarly according to Steps 1~8 above.

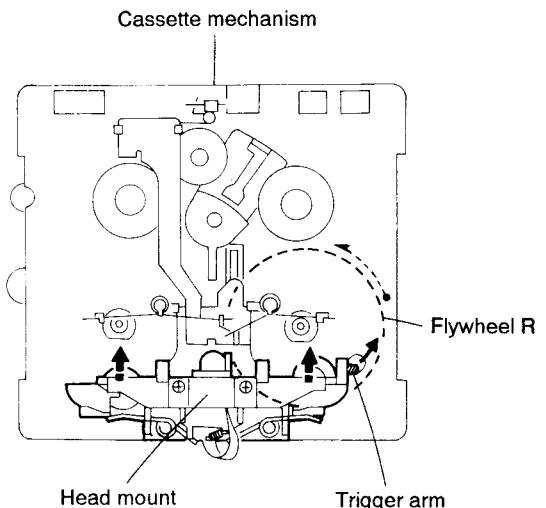


Fig. 5-19

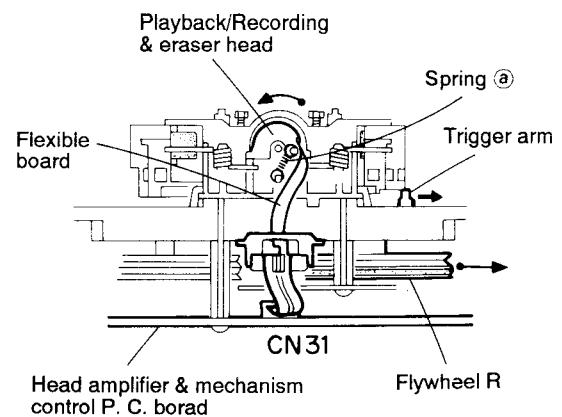


Fig. 5-20

● Reassembling the Playback/Recording & Eraser Head

1. Reassemble the playback head from the front of the head mount to the position as shown in Fig. 5-21.
2. Fix the reversing azimuth screw.
3. Set the spring ① from behind the playback/Recording & eraser head.
4. Attach the flexible P.C. board to the chassis base, and fix it with the FPC holder as shown in Fig. 5-21.
5. The Playback/Recording & eraser head should also be reassembled similarly according to Steps 1~4 above.

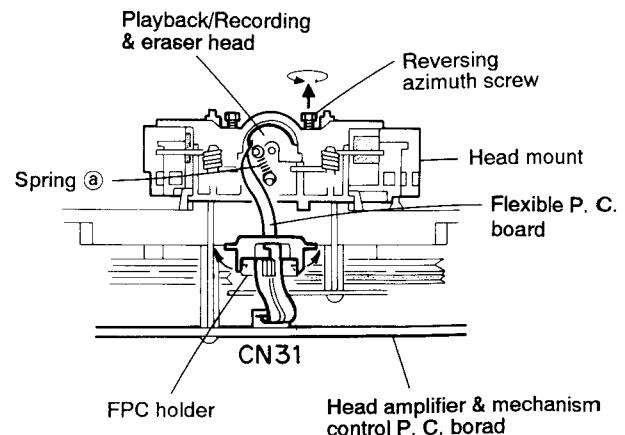


Fig. 5-21

■ Removing the Head Amplifier & Mechanism Control P.C. Board (See Fig. 5-22)

1. Remove the cassette mechanism assembly.
2. After turning over the cassette mechanism assembly, remove the three screws ① retaining the head amplifier & mechanism control P.C. board.
3. Disconnect the connector CN32 on the P.C. board including the connector CN1 on the reel pulse P.C. board.
4. When necessary, remove the 4pin parallel wire soldered to the main motor.

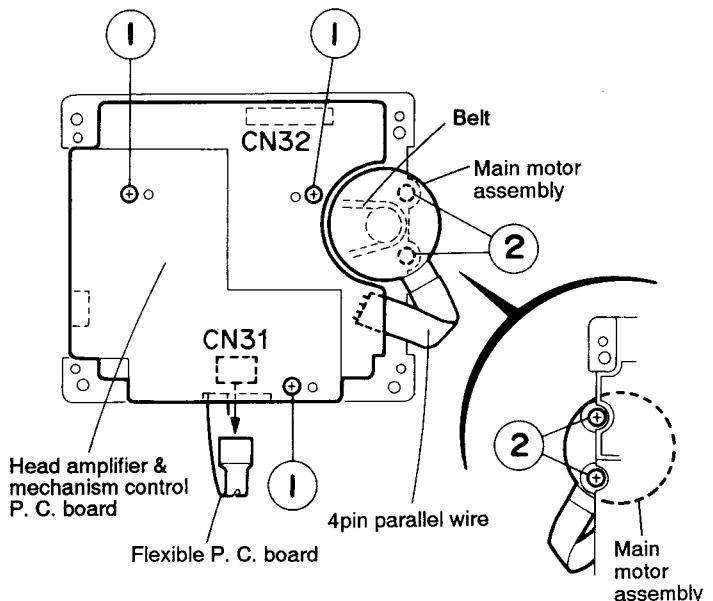


Fig. 5-22

■ Removing the Main Motor Assembly

1. Remove the two screws ② retaining the main motor assembly (See Fig. 5-22, 22a).
2. While raising the main motor, remove the capstan belt from the motor pulley (See Fig. 5-22a).

Caution 1: Be sure to handle the capstan belt so carefully that this belt will not be stained by grease and other foreign matter. Moreover, this belt should be hanged while referring to the capstan belt hanging method in Fig. 5-23, 24.

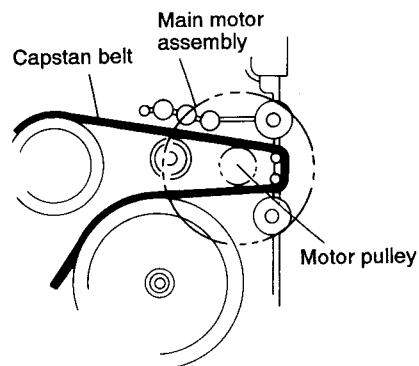


Fig. 5-22a

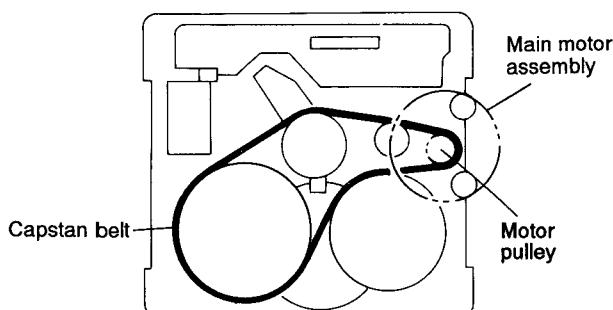


Fig. 5-23

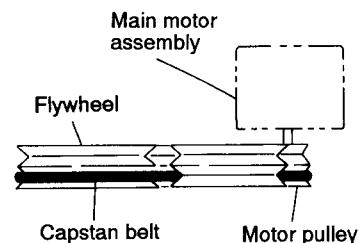


Fig. 5-24

■ Removing the Flywheel (See Figs. 5-25 and 5-26)

1. Remove the head amplifier & mechanism control P.C. board.
2. Remove the main motor assembly.
3. After turning over the cassette mechanism, remove the slit washers ⑥ and ⑦ fixing the capstan shafts R and L, and pull out the flywheels R and L respectively from behind the cassette mechanism.

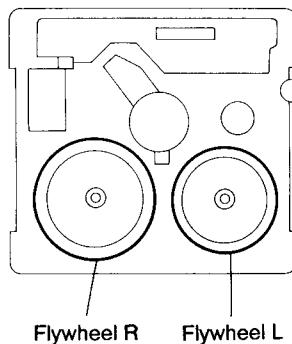


Fig. 5-26

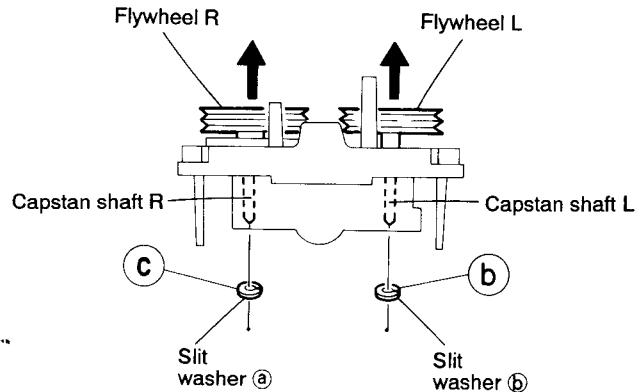


Fig. 5-25

■ Removing the Reel Pulse P.C. Board and Solenoid (See Fig. 5-27)

1. Remove the five pawls (④, ⑤, ⑥ and ⑧, ⑨) retaining the reel pulse P.C. board.
2. From the surface of the reel pulse P.C. board parts, remove the two pawls ⑩ and ⑪ retaining the solenoid.

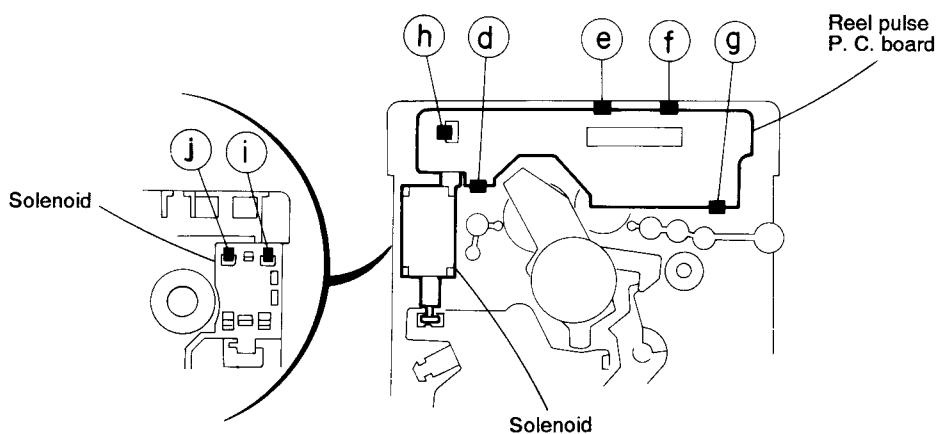


Fig. 5-27

《CD Player Unit Section》

■ Removing the CD mechanism and CD servo control P.C. board (See Figs. 5-28 and 5-29)

1. Remove the rear panel.
2. Remove the left and right side panels.
3. Remove the CD player unit.
4. After turning back the CD player unit, remove the four screws ① retaining the CD servo control P. C. board and shield.
5. From the connector CN601 on the CD servo control P. C. board, disconnect the card wire outgoing from the CD mechanism.
6. From the connector P011 on the CD mechanism P. C. board, disconnect the connector wire outgoing from the connector CN602 on the CD servo control P. C. board.
7. Remove the four screws ② retaining the CD mechanism.
8. While sliding the CD mechanism in the arrow direction, take turn table out so carefully that it does not come into contact with the chassis.

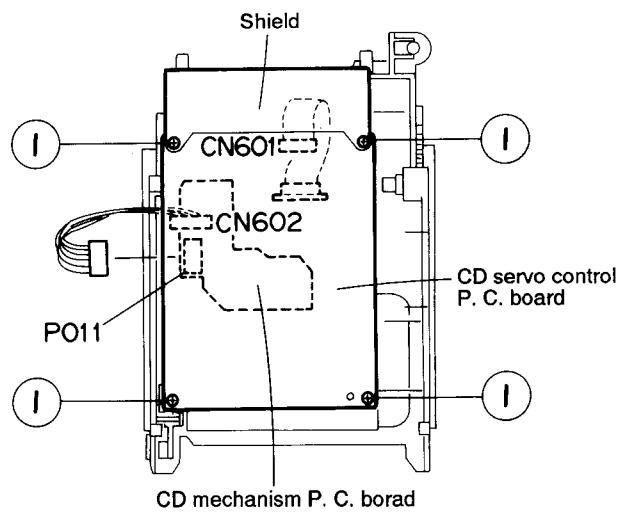


Fig. 5-28

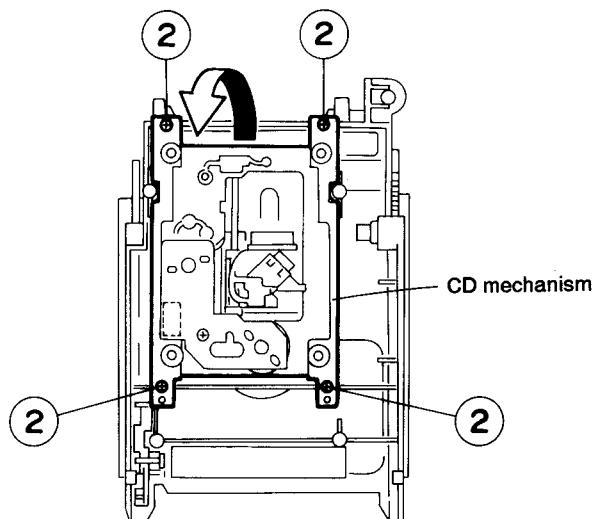


Fig. 5-29

6. Main Adjustment

■ Measurement Instruments Required for Adjustment

1. Low frequency oscillator
This oscillator should have a capacity to output 0dBs to 600 Ω at an oscillation frequency of 50Hz~20kHz.
2. Attenuator impedance: 600 Ω
3. Electronic voltmeter
4. Distortion meter
5. Frequency counter
6. Wow & flutter meter
7. Test tape
 - VTT 712: Tape speed and running unevenness (3kHz)
 - VTT 724: Reference level (1kHz)
 - TMT 7036: Head angle (10kHz), playback frequency characteristics (1kHz) and dubbing frequency characteristics (63, 1 and 10kHz)
- Because of frequency - mixed tape with 63, 1, 10 and 14kHz (250nWb/m - 24dB), use this tape together with a filter.
8. Blank tape
 - TYPE I : AC-225
 - TYPE II : AC-514
9. Torque gauge: For play and back tension FWD (TW2111A), REV (TW2121A) and FF/REW (TW2231A)

■ Measurement Conditions

Power supply voltage	AC230V (50Hz)
Reference output	Speaker: 0.775V/3 Ω Headphone: 0.245V/32 Ω
Reference frequency and input level · 1kHz, AUX: -8dBs	
Input for confirming recording and playback	
characteristics	AUX: -28dBs
Measurement output terminal	Speaker J3002
※ Load resistance	3 Ω

● Radio Input signal

AM frequency 400Hz
 AM modulation factor 30%
 FM frequency 400Hz
 FM frequency deviation 22.5kHz

● Tuner section

● Standard measurement positions of volume

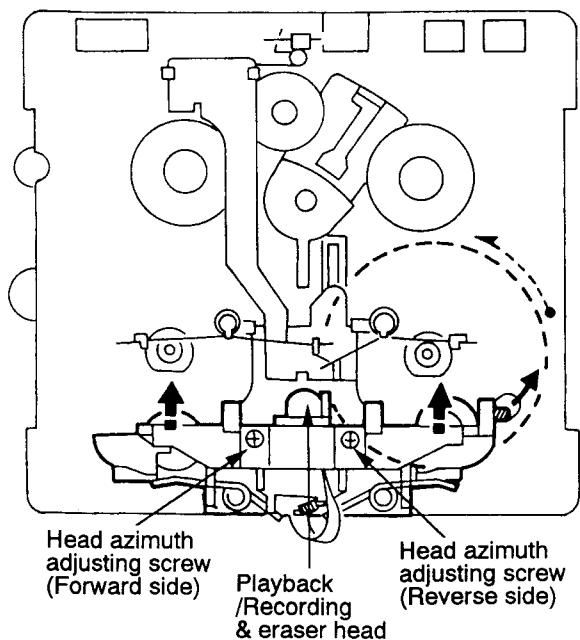
Bass Off
 Active hyper bass pro Off
 Up and down adjustment of volume VOL 23

Precautions for Measurement

1. Apply 30pF and $33\text{k}\Omega$ to the IF sweeper output side and $0.082\mu\text{F}$ and $100\text{k}\Omega$ in series to the sweeper input side.
2. The IF sweeper output level should be made as low as possible within the adjustable range.
3. Since the IF sweeper is a fixed device, there is no need to adjust this sweeper.
4. Since a ceramic oscillator is used, there is no need to perform any MPX adjustment.
5. Since a fixed coil is used, there is no need to adjust the FM tracking.
6. The input and output earth systems are separated. In case of simultaneously measuring the voltage in both of the input and output systems with an electronic voltmeter for two channels, therefore, the earth should be connected particularly carefully.
7. In the case of BTL connection amp., the minus terminal of speaker is not for earthing. Therefore, be sure not to connect any other earth terminal to this terminal. This system is of an OTL system.
8. For connecting a dummy resistor when measuring the output, use the wire with a greater core size.
9. Whenever any mixed tape is used, use the band pass filter (DV- 12).

『Arrangement of Adjusting Positions』

● Cassette mechanism section



● Cassette mechanism section (Back side)

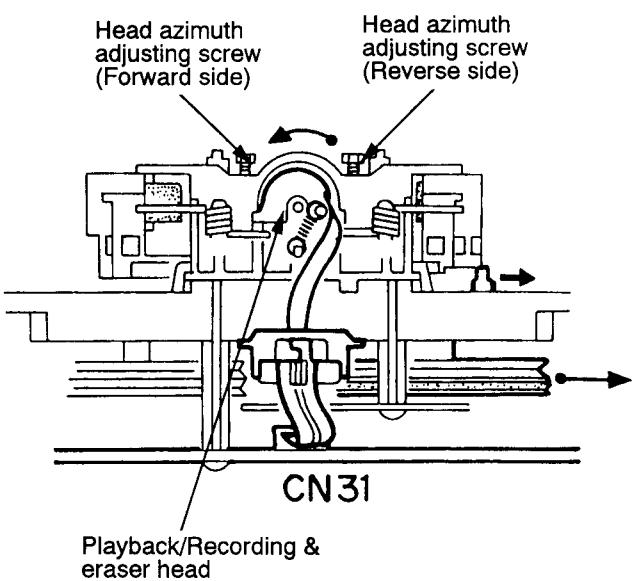


Fig. 6-1

● Front panel assembly Section

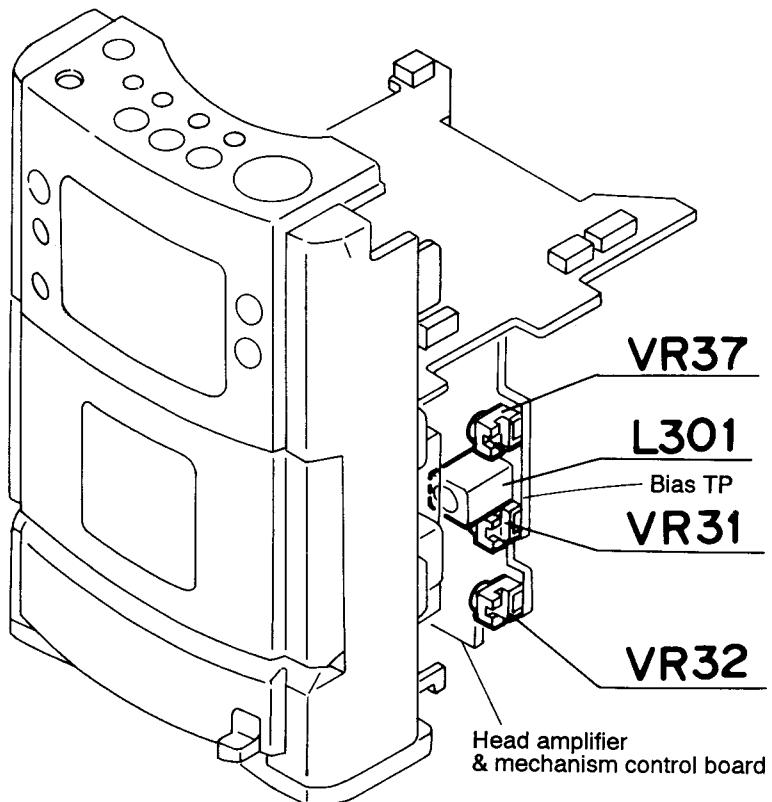


Fig. 6-2

■ Tape Recorder Section

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Confirmation of head angle	Test tape : TMT7036 (10kHz) Measurement output terminal : Speaker terminal R (Load resistance: 3 Ω) : Headphone terminal	① Play back the test tape TMT7036 (10kHz). ② With the recording & playback mechanism, adjust the head azimuth screw so that the forward and reverse output levels become maximum. After adjustment, lock the head azimuth at least by half a turn. ③ In either case, this adjustment should be performed in both the forward and reverse directions with the head azimuth screw.	Maximum output	Adjust the head azimuth screw only when the head has been changed.
Confirmation of tape speed	Test tape : VTT712 (3kHz) or TMT7036 (3kHz) Measurement output terminal : Headphone terminal	Adjust VR37 so that the frequency counter reading becomes $3,010\text{Hz} \pm 15\text{Hz}$ when playing back the test tape VTT712 (3kHz) with playback and recording mechanism after ending forward winding of the tape.	Tape speed of deck : $3,010\text{Hz} \pm 15\text{Hz}$	VR37

■ Reference Values for Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Remarks
Difference between the forward and reverse speed	Test tape : TMT7036 (10kHz) Measurement output terminal : Speaker terminal R (Load resistance: 3 Ω) measurement output terminal : Headphone terminal	When the test tape VTT712 (3kHz) has been played back with the recording and playback mechanism at the beginning of forward winding, the frequency counter reading of the difference between both of the mechanisms should be 6.0Hz or less.	6.0Hz or less	
Wow & flutter	Test tape : TMT7036 (10kHz) Measurement output terminal : Headphone terminal	When the test tape VTT712 (3kHz) has been played back with the recording and playback mechanism at the beginning of forward winding, the frequency counter reading of wow & flutter should be 0.25% or less (WRMS).	0.25% or less (WRMS)	

■ Electrical Performance

Items	Measurement conditions	Measurement method	Standard values	Adjusting positions
Adjustment of recording bias current (Reference value)	<ul style="list-style-type: none"> Mode: Forward or reverse mode Recording mode Test tape : AC-514 to TYPE II and AC-225 to TYPE I Measurement output terminal : Both recording and headphone terminals 	<p>① With the recording and playback mechanism, load the test tapes (AC-514 to TYPE II and AC-225 to TYPE I), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② After connecting $100\ \Omega$ in series to the recorder head, measure the bias current with a valve voltmeter at both of the terminals.</p> <p>③ After resetting the [PAUSE] mode, start recording. At this time, adjust VR31 for Lch and VR32 for Rch so that the recording bias current values become $4.0\ \mu A$ (TYPE I) and $4.20\ \mu A$ (TYPE II).</p>	AC-225 : $4.20\ \mu A$ AC-514 : $4.0\ \mu A$	Lch :VR31 Rch :VR32
Adjustment of recording and playback frequency characteristics	<p>Reference frequency : 1kHz and 10kHz (REF.: $-20dB$)</p> <p>Test tape : TYPE II : AC-514</p> <p>Measurement input terminal : OSC IN</p>	<p>① With the recording and playback mechanism, load the test tape (AC-514 to TYPE II), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② While repetitively inputting the reference frequency signal of 1kHz and 10kHz from OSC IN, record and play back the test tape.</p> <p>③ While recording and playing back the test tape in TYPE II, adjust VR31 for Lch and VR32 for Rch so that the output deviation between 1kHz and 10kHz becomes $-1dB \pm 2dB$.</p>	Output deviation between 1kHz and 10kHz : $-1dB \pm 2dB$	Lch :VR31 Rch :VR32

■ Reference Values for Electrical Function Confirmation Items

Items	Measurement conditions	Measurement method	Standard values	Remarks
Recording bias frequency	<p>Forward or reverse</p> <ul style="list-style-type: none"> Test tape : TYPE II (AC-514) Measurement terminal: BIAS TP on P.C. board 	<p>① While changing over to and from BIAS 1 and 2, confirm that the frequency is changed.</p> <p>② With the recording and playback mechanism, load the test tape (AC-514 to TYPE II), and set the mechanism to the recording and pausing conditions in advance.</p> <p>③ Confirm that the BIAS TP frequency on the P.C. board is $100kHz \pm 6kHz$.</p>	$100kHz \pm 6kHz$	
Eraser current (Reference value)	<p>Forward or reverse</p> <ul style="list-style-type: none"> Recording mode Test tape : AC-514 to TYPE II and AC-225 to TYPE I Measurement terminal: Both of the eraser head terminals 	<p>① With the recording and playback mechanism, load the test tapes (AC-514 to TYPE II and AC-225 to TYPE I), and set the mechanism to the recording and pausing conditions in advance.</p> <p>② After setting to the recording conditions, connect $1W$ in series to the eraser head on the recording and playback mechanism side, and measure the eraser current from both of the eraser terminals.</p>	TYPE II : $120mA$ TYPE I : $75mA$	

7. Out Line of Main IC

■ IC701: μPD78064GF-091 (System CPU)

Pin No.	Symbol	BUP	I/O	Function
1	SDATA	H	I/O	Serial data (TUNER PLL / TAPE IC)
2	SCK	H	O	Serial clock (TUNER PLL / TAPE IC)
3	QRIN		I	CD Q code data
4	–		– (Not used)	
5	SQCK	L	O	CD Q code date synchronizing clock
6	IC		–	Connected to Vss
7	X2		–	Main system clock: 4.19MHz
8	X1		I	Main system clock: 4.19MHz
9	Vdd		–	Power supply
10	XT1		I	Sub system clock: 32.768kHz
11	XT2		–	Sub system clock: 32.768kHz
12	RESET		I	Reset
13	REM		I	Remote control
14	RDSCK		–	Not used
15	JOG1		I	JOG encoder 1
16	BEAT2	L	O	Main clock selection 2
17	BEAT1	L	O	Main clock selection 1
18	+BCTL	H	O	Switched 5V control ("H" = off at 5V)
19	XRST	H	O	CD LSI reset
20	MCLK	L	O	CD LSI command clock
21	MDATA	L	O	CD LSI command data
22	MLD	L	O	CD LSI command load
23	PBMUTE	L	O	Tape playback muting (Mute = "L")
24	STTA	L	O	Tape IC strobe
25	REEL		I	Tape end detection
26	F.AUX	L	O	Function AUX (AUX = "L")
27	AVss		–	AD converter GND
28	CDSAFETY		I	CD abnormal voltage detection
29	DOOR/RST		I	[REST/CLOSE] switch
30	SAFETY1		I	Abnormal voltage detection 1
31	SAFETY0		I	Abnormal voltage detection 2
32	KEY1		I	Body key input 1
33	KEY0		I	Body key input 0 (including version selection)
34	TAPE0		I	TAPE SWITCH 0
35	TAPE1		I	TAPE SWITCH 1
36	AVdd		–	AD converter power supply with a same potential as that of Vdd
37	AVref		–	AD converter reference voltage: off at [SLOW] mode
38	BUP	H	I	Backup power supply decision ("H" = Backup)

Pin No.	Symbol	BUP	I/O	Function
39	F. TU	H	O	Function tuner (Tuner = "H")
40	Vss		–	GND
41	MPX		I	FM stereo detection ("L" = Stereo)
42	PERIOD	L	O	Tuner PLL strobe
43	JOG2		I	JOG encoder 2
44	BASS	H	O	Bass control (PWM)
45	TRE	H	O	TRE control (PWM)
46	VOL	H	O	VOL. control (PWM)
47	AHB	H	O	Active hyper bass ON/OFF (ON= "L"; OFF= "H")
48	SMUTE	H	O	System muting (Muting = "L")
49	P. OUT	L	O	Power ON/OFF (Power ON = "H")
50	F. CD	H	O	Function CD (CD = "H")
51	COM0	L	O	LCD common 0
52	COM1	L	O	LCD common 1
53	COM2	L	O	LCD common 2
54	COM3	L	O	LCD common 3
55	BIAS	L	–	LCD bias voltage
56	VLC0		–	LCD bias voltage BIAS>VLC0>VLC1>VLC2
57	VLC1		–	LCD bias voltage
58	VLC2		–	LCD bias voltage
59	Vss		–	GND
60	S0	L	O	LCD segment 0
61	S1	L	O	LCD segment 1
62	S2	L	O	LCD segment 2
63	S3	L	O	LCD segment 3
64	S4	L	O	LCD segment 4
65	S5	L	O	LCD segment 5
66	S6	L	O	LCD segment 6
67	S7	L	O	LCD segment 7
68	S8	L	O	LCD segment 8
69	S9	L	O	LCD segment 9
70	S10	L	O	LCD segment 10
71	S11	L	O	LCD segment 11
72	S12	L	O	LCD segment 12
73	S13	L	O	LCD segment 13
74	S14	L	O	LCD segment 14
75	S15	L	O	LCD segment 15
76	S16	L	O	LCD segment 16

Pin No.	Symbol	BUP	I/O	Function
77	S17	L	O	LCD segment 17
78	S18	L	O	LCD segment 18
79	S19	L	O	LCD segment 19
80	S20	L	O	LCD segment 20
81	S21	L	O	LCD segment 21
82	S22	L	O	LCD segment 22
83	S23	L	O	LCD segment 23
84	S24	L	O	LCD segment 24
85	S25	L	O	LCD segment 25
86	S26	L	O	LCD segment 26
87	S27	L	O	LCD segment 27
88	S28	L	O	LCD segment 28

Pin No.	Symbol	BUP	I/O	Function
89	S29	L	O	LCD segment 29
90	S30	L	O	LCD segment 30
91	S31	L	O	LCD segment 31
92	S32	L	O	LCD segment 32
93	S33	L	O	LCD segment 33
94	S34	L	O	LCD segment 34
95	S35	L	O	LCD segment 35
96	S36	L	O	LCD segment 36
97	S37	L	O	LCD segment 37
98	S38	L	O	LCD segment 38
99	S39	L	O	LCD segment 39
100	STAT	L	I	CD LSI status

■ IC38: BH3852S (Electrical Volume)

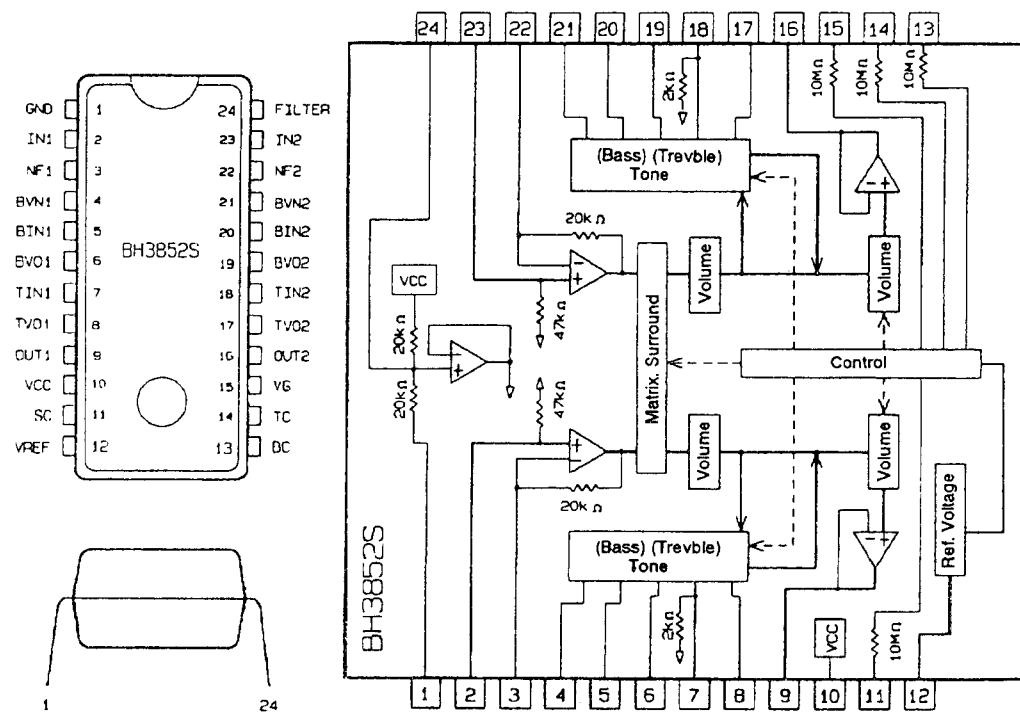
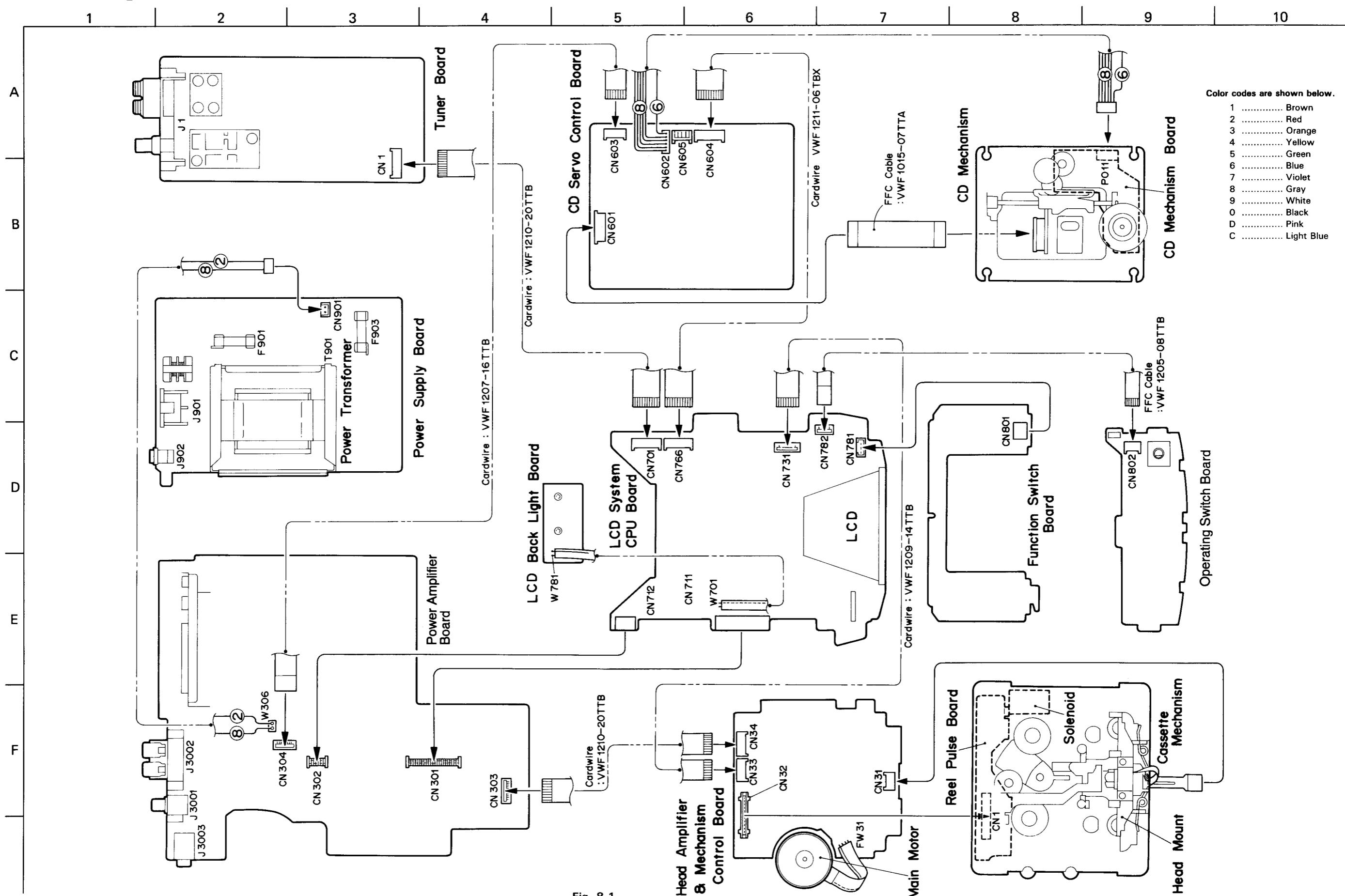
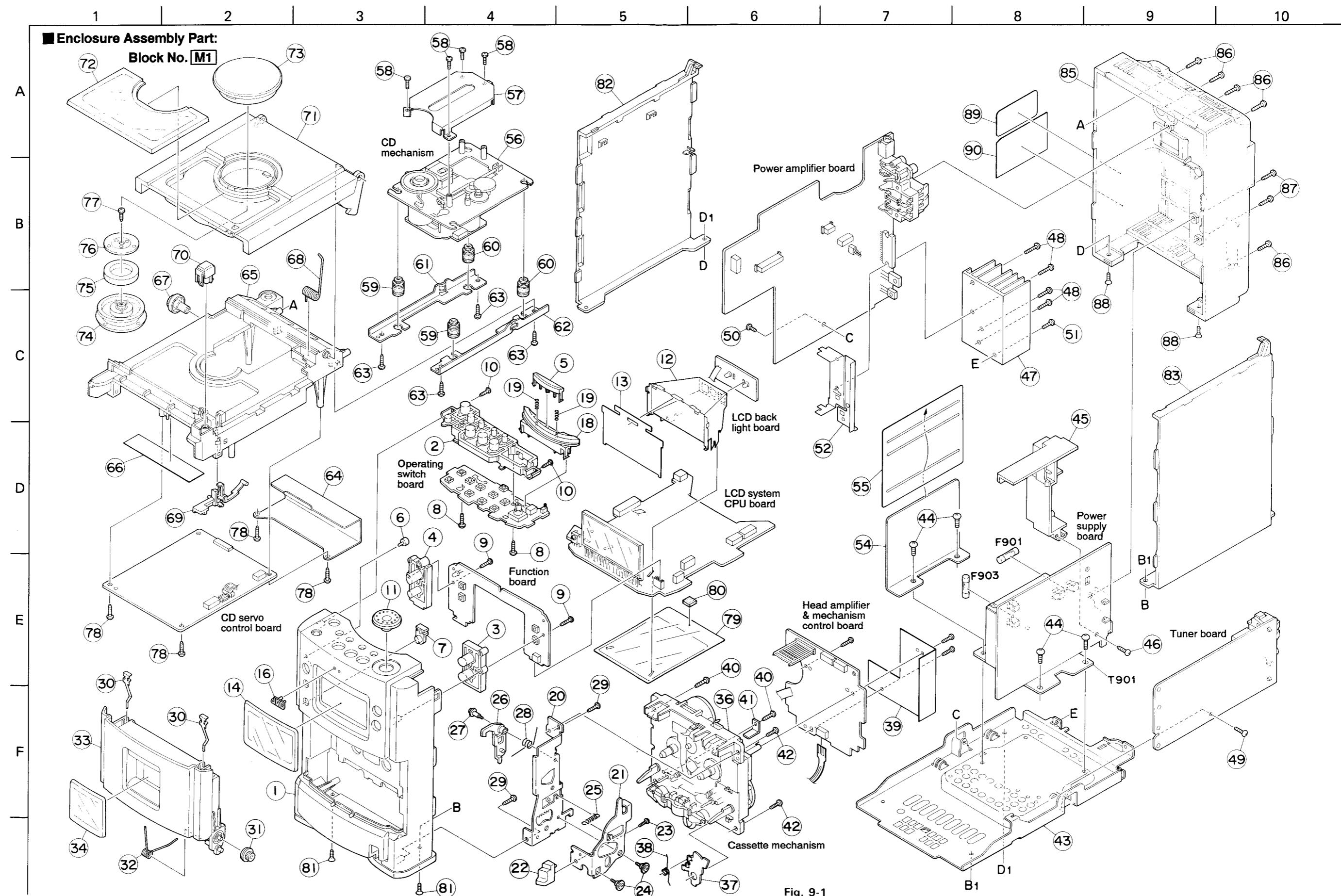


Fig. 7-1

8. Wiring Connections



9. Analytic Drawing and Parts List



■ Enclosure Assembly Parts List

BLOCK NO. M1MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
	1	VJG1473-003	FRONT PANEL		1		
	2	VXP3867-002	PUSH BUTTON(A)		1		
	3	VXP5352-002	PUSH BUTTON(B)		1		
	4	VXP5353-002	PUSH BUTTON(C)		1		
	5	VXP5358-002	SNOOZE BUTTON		1		
	6	VJK4493-001SC	LENS(STANDBY)		1		
	7	VJK4504-001	REMOCON LENS		1		
	8	SBSF2608Z	SCREW	FOR F.P+PWB	2		
	9	SBSF3008Z	SCREW	BUTTON+PWB	2		
	10	SBSF2608Z	SCREW	FOR F.P+BUTTON	2		
	11	VXL4453-002	MULTI JOG DIAL		1		
	12	VYH3982-001	LAMP CASE		1		
	13	VYTT704-001	LCD FILTER	FOR LCD	1		
	14	VJT4241-002	LCD LENS		1		
	16	E406971-221	JVC MARK		1		
	18	VYH8160-002	BUTTON COVER		1		
	19	VKW5306-001	COMP.SPRING		2		
	20	VYH3983-001	DOOR HOLDER		1		
	21	VYH8149-001	EJECT LEVER		1		
	22	VXQ4125-002	EJECT KNOB		1		
	23	SBSF2608Z	SCREW	FOR E.LVR+E.KNO	1		
	24	VKZ4323-002	SCREW	D.HOLDER+E.LEVE	2		
	25	VKW3002-274	TENSION SPRING	FOF E.LEVER	1		
	26	VYH7347-001	EJECT ARM		1		
	27	VKZ4341-001	SPECIAL SCREW	FOR EJECT ARM	1		
	28	VKW4938-001	TORTION SPRING	FOR EJECT ARM	1		
	29	SBSF3008Z	SCREW	F.P+D.HOLDER	2		
	30	VKY4180-001	CASSETTE SPRING		2		
	31	VYH5601-001	GEAR		1		
	32	VKW5295-001	DOOR SPRING		1		
	33	VJT2384-002	CASSETTE DOOR		1		
	34	VJT4242-002	DOOR LENS		1		
	36	-----	CASSETTE MECHA		1		
	37	VKL7850-202	EJECT SAFTY(R)		1		
	38	VKW5258-002	TORSION SPRING		1		
	39	VMA4723-001	SHIELD		1		
	40	SBSF3010Z	SCREW	F.PANEL+MECHA	2		
	41	VYH8183-001	BRACKET	FOR CASSETTE DO	1		
	42	SBST3008Z	SCREW	DOOR HOL+MECHA	2		
	43	VYH1263-001	BOTTOM CHASSIS		1		
	44	SBST4006Z	SCREW	CHASSIS+TRANS	4		
	45	VYH3984-001	JACK HOLDER		1		
	46	SBSF3010Z	SCREW	PWB+JACK HOL	1		
	47	VYH8153-001	RADIATION		1		
	48	SBST3012Z	SCREW	RADI+IC	4		
	49	SBST3006Z	SCREW	RADI+CHASSIS	1		
	50	SBST3006Z	SCREW	MAIN PWB+CHASSI	1		
	51	SBST3006Z	SCREW	TUNER PWB+CHASS	1		
	52	VYH3987-001	IC HOLDER		1		
	54	VMA3239-001	SHIELD		1		
	55	VMA4720-001	AARRIER		1		
	56	-----	CD MECHA ASSY		1		
	57	VJD5410-005	PICK COVER		1		
	58	SDSF2006M	SCREW	CD MECHA+P.COVE	4		
	59	E75609-001	INSULATOR		2		

BLOCK NO. M1MM

REF.	PARTS NO.	PARTS NAME	REMARKS	Q'TY	SUFFIX	CLR
	60 E75609-002 61 VYH8089-001SC 62 VYH8089-002SC 63 SBSF3010Z 64 VMA4692-002SC	INSULATOR CD MECHA HOLDER CD MECHA HOLDER SCREW SHIELD	CD CASE+M.HOLDE FOR CD MECHA WI	2 1 1 4 1		
	65 VJD1216-003 66 E406709-001 67 VYH4769-002 68 VKW5276-001 69 VYH8152-001	CD CASE LASER CAUTION GEAR CD DOOR SPRING LOCK LEVER		1 1 1 1 1		
	70 VXP5354-002 71 VJT2385-002 72 VJT3392-002 73 VJT4245-002 74 VYH3726-002SS	CD AJECT KNOB CD DOOR CD LENS CD ORNAMENT CLAMPER		1 1 1 1 1		
	75 VYH7313-003 76 VYH7677-201 77 SDSF2606Z 78 SBSF3010Z 79 VMA4721-002	MAGNET YOKE SCREW SCREW SHIELD	FOR CLAMPER CD PWB+CD CASE	1 1 1 4 1		
	80 PU59915-105 81 SSST3008Z 82 VJD2488-003 83 VJD2489-003 85 VJG1477-014	SPACER SCREW SIDE PANEL(L) SIDE PANEL(R) REAR PANEL	FOR SHIELD CHASSIS+F.PANEL	1 2 1 1 1		
	86 SBSF3010Z 87 SBSF3010Z 88 SSST3008Z 89 E70891-001 90 VYN9317-C005T	SCREW SCREW SCREW CLASS 1 LABEL NAME PLATE	JACK+R.P R.P+CD CASE FOR R.P+CHASSIS	5 2 2 1 1	E	
A F 901 A F 903	VYN9317-C002T VYN9317-C008T VYN9317-C009T QMF51E2-R40SBS QMF51E2-5RO	NAME PLATE NAME PLATE NAME PLATE FUSE FUSE		1 1 1 1 1	B G EN	
A T 901	VTP66J2-12L	POWER TRANS		1		

1 2 3 4 5

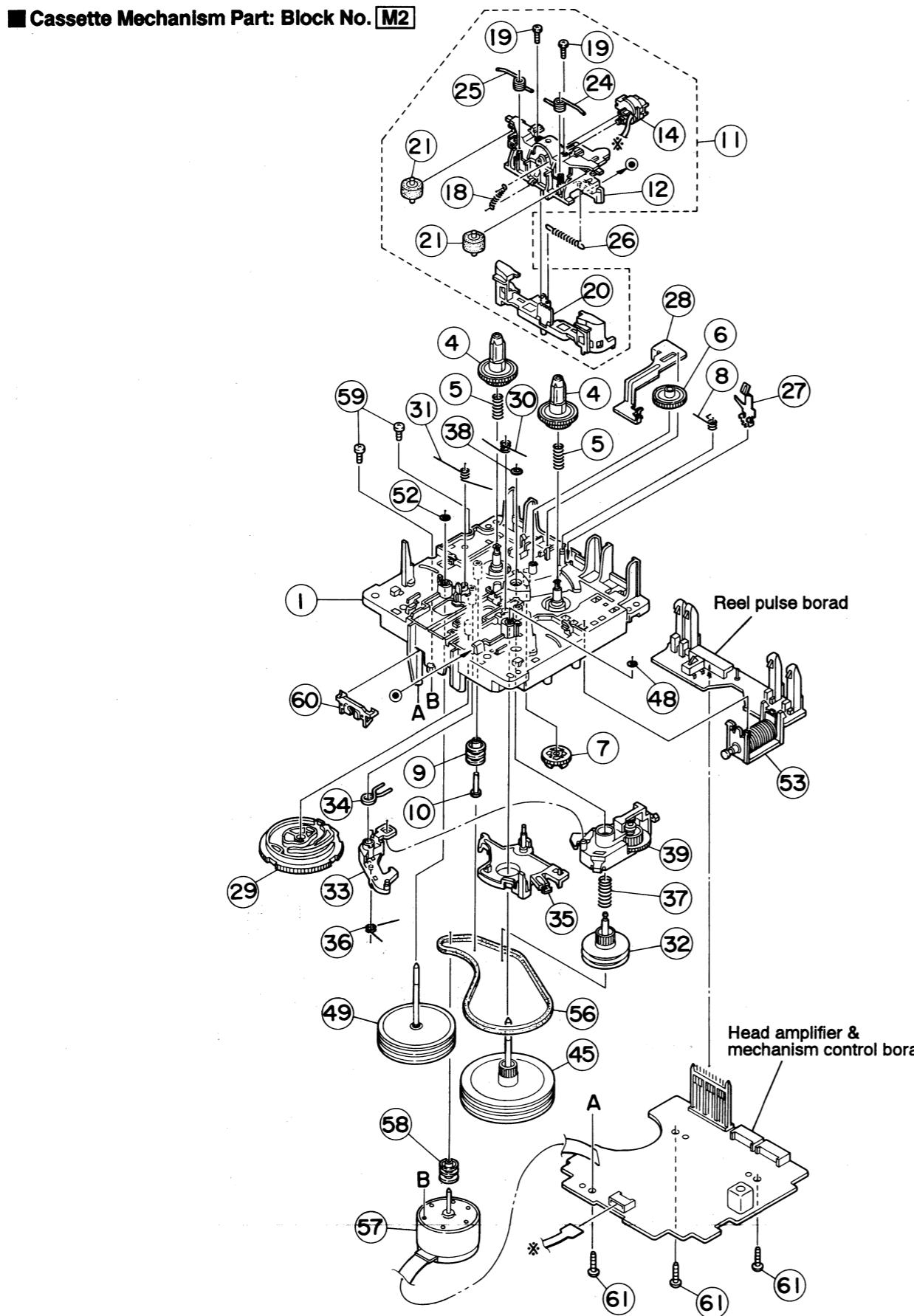
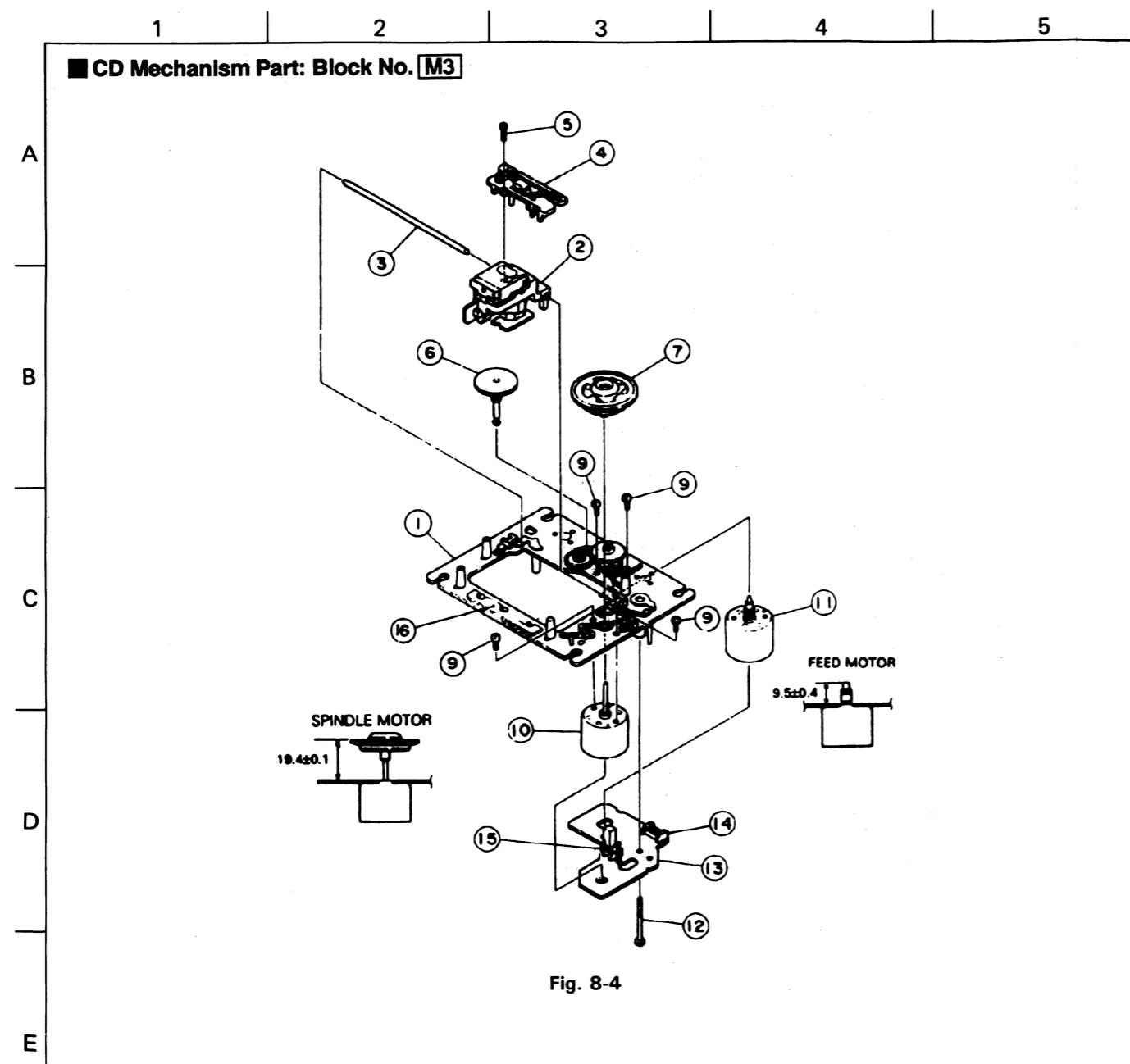


Fig. 9-2

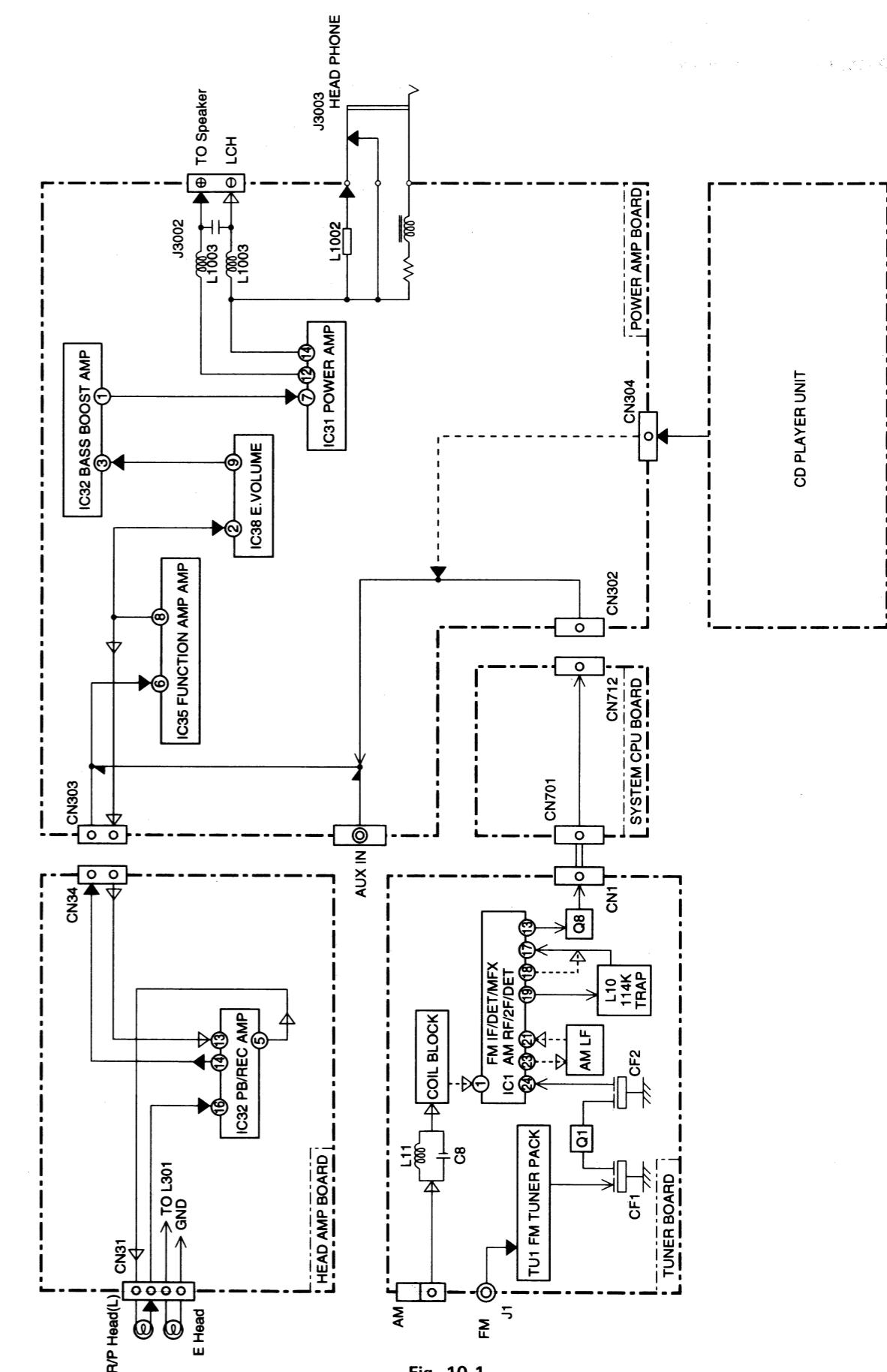
Cassette Mechanism Parts List

BLOCK NO. M2MM						
▲ REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
1	VKS1165-00C	CHASSIS B. ASSY		1		
4	VKS2274-002	REEL GEAR		2		
5	VKW5286-002	B.T. SPRING		2		
6	VKS5559-001	PLAY IDLE GEAR		1		
7	VKS5560-001	FR IDLE GEAR		1		
8	VWK5296-001	EARTH SPRING		1		
9	VKR4749-002	IDLE PULLEY		1		
10	VKH5786-002	SHAFT		1		
11	VKS2275-00C	HEAD MOUNT ASSY		1		
12	VKS1167-001	HEAD MOUNT BASE		1		
14	VGH0425-544	HEAD HOLDER ASY	VKS2275-00B	1		
18	VKW5302-001	HEAD SPRING		1		
19	VKZ4730-001	SPECIAL SCREW		2		
20	VKS2277-005	DIRECTION LEVER		1		
21	VKP4233-00A	PINCH ROL. ASSY		2		
24	VKW5299-001	PIN.ROL.SP.(R)		1		
25	VKW5300-001	PIN.ROL.SP.(L)		1		
26	VKW5285-001	RETURN SPRING		1		
27	VKY3149-001	CASSETTE SP.		1		
28	VKM3906-002	PLAY SW.LEVER		1		
29	VKS1166-001	CONTROL CAM		1		
30	VKW5279-001	HEAD BASE SP(R)		1		
31	VKW5280-001	HEAD BASE SP(L)		1		
32	VKR3199-001	MAIN PULLEY		1		
33	VKS3785-001	FR ARM		1		
34	VKW5284-002	SWING SPRING		1		
35	VKS2278-001	TRIGGER ARM		1		
36	VKW5301-001	FR SPRING		1		
37	VKW5266-001	ELEVATOR SPRING		1		
38	WDL214025	WASHER		1		
39	VKS3786-00D	CLUTCH ASSY		1		
45	VKF3205-00B	F.WHEEL ASSY(R)		1		
48	WDL183525-6	SLIT WASHER		1		
49	VKF3207-00B	F.WHEEL ASSY(L)		1		
52	WDL173525-2	SLIT WASHER		1		
53	VGP2401-00A	DC SOLENOID		1		
56	VKB3000-178	CAPSTAN BELT		1		
57	MSI-5U2LWA	D.C.MOTOR ASS'Y		1		
58	VKR4761-001	MOTOR PULLEY		1		
59	SPSP2604Z	SCREW		2		
60	VKS5577-001	FPC HOLDER		1		
61	SBSF2608Z	SCREW		3		

10. Block Diagram


CD Mechanism Parts List

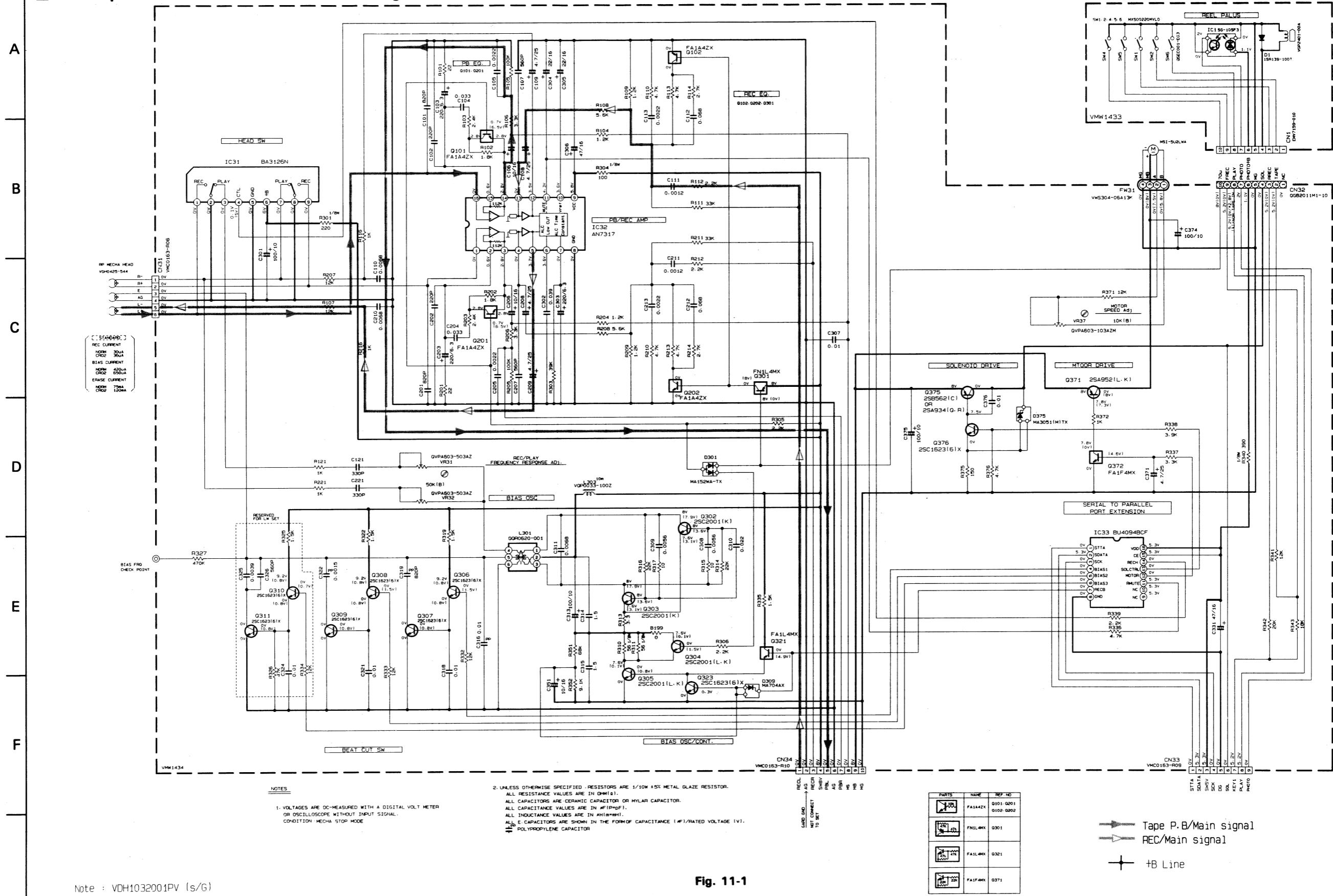
REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
1	EPB-002A	BASE ASS'Y		1		
2	OPTIMA-6S	PIC-UP		1		
3	E406777-001	GUIDE SHAFT		1		
4	E307746-001	CD RACK		1		
5	SDSF2006Z	SCREW	CD LACK ASS'Y	1		
6	EPB-003A	MECHA GIAR		1		
7	E75807-301	CD T.TABLE ASSY		1		
9	SDSP2003N	SCREW	FOR MOTOR	4		
10	E406783-001	SP MOTOR	SPINDL MOTOR	1		
11	E406784-001SA	DC MOTOR ASS'Y	FEED MOTOR	1		
12	E75832-001	S.SCREW	M.REAF SWITCH	1		
13	EMW10190-001	BOARD	LEAF SWITCH	1		
14	EMV5109-006B	6P PLUG ASSY		1		
15	ESB1100-005	LEAF SWITCH		1		
16	E407212-001	DAMPER		1		



11. Standard Schematic Diagrams

1 2 3 4 5 6 7 8 9 10

■ Head Amplifier & Mechanism Control Circuit: Drawing No. VDH1032-001PV



Note : VDH1032001PV (S/G)

Fig. 11-1

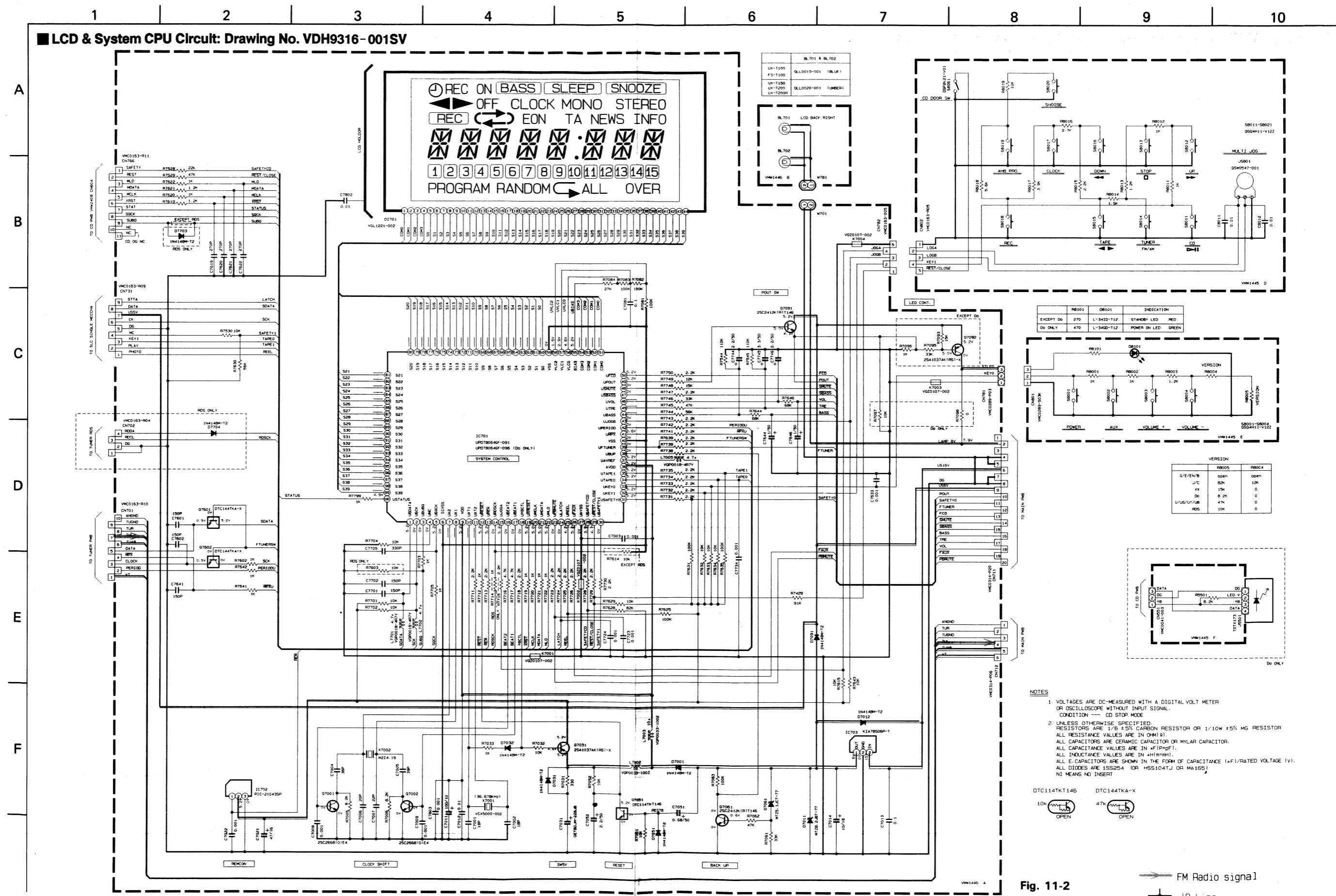


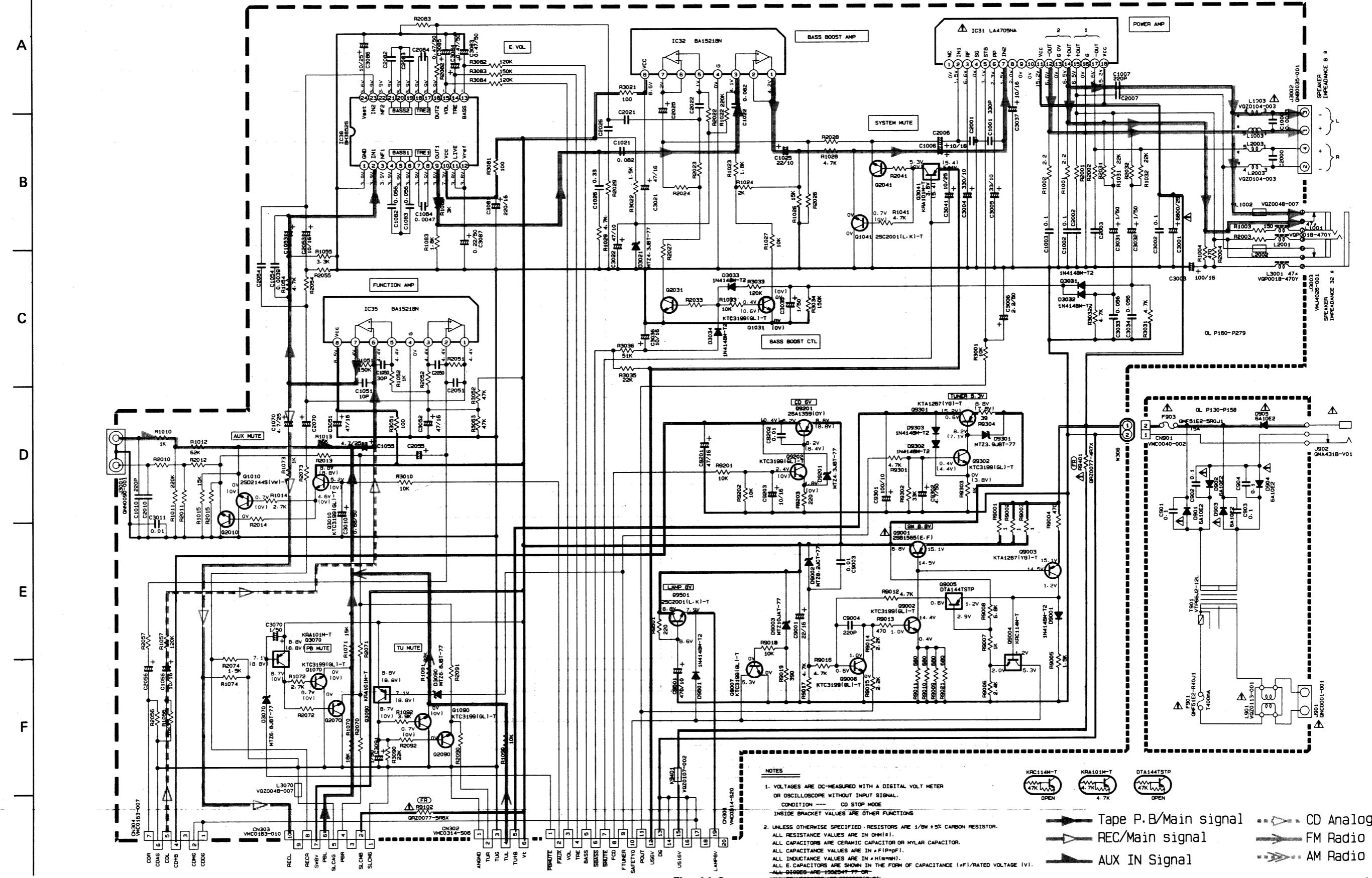
Fig. 11-2

Note : VDH9316001SV(s/G)

(No. 10041) 44

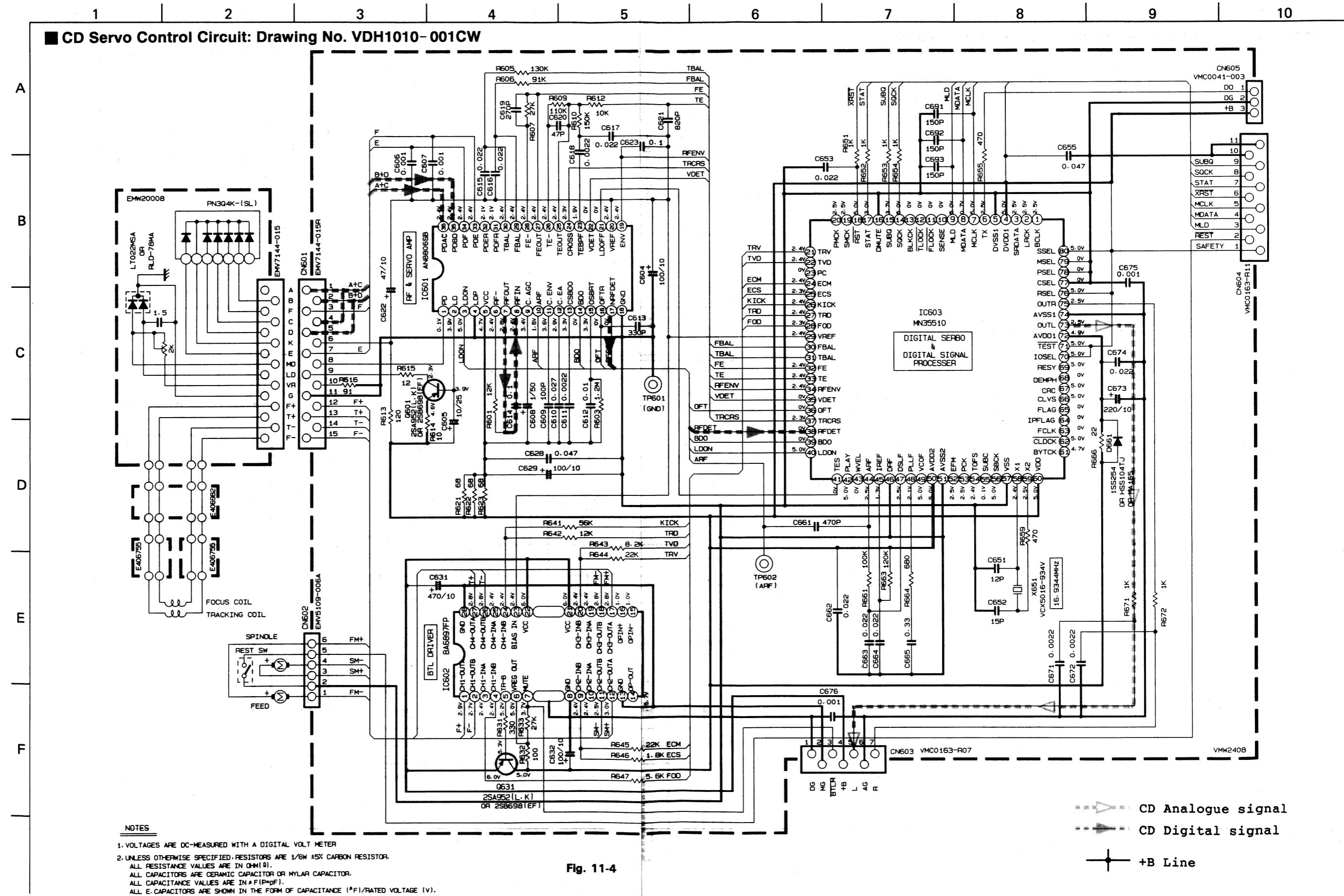
File name: B931501SV

1 2 3 4 5 6 7 8 9 10

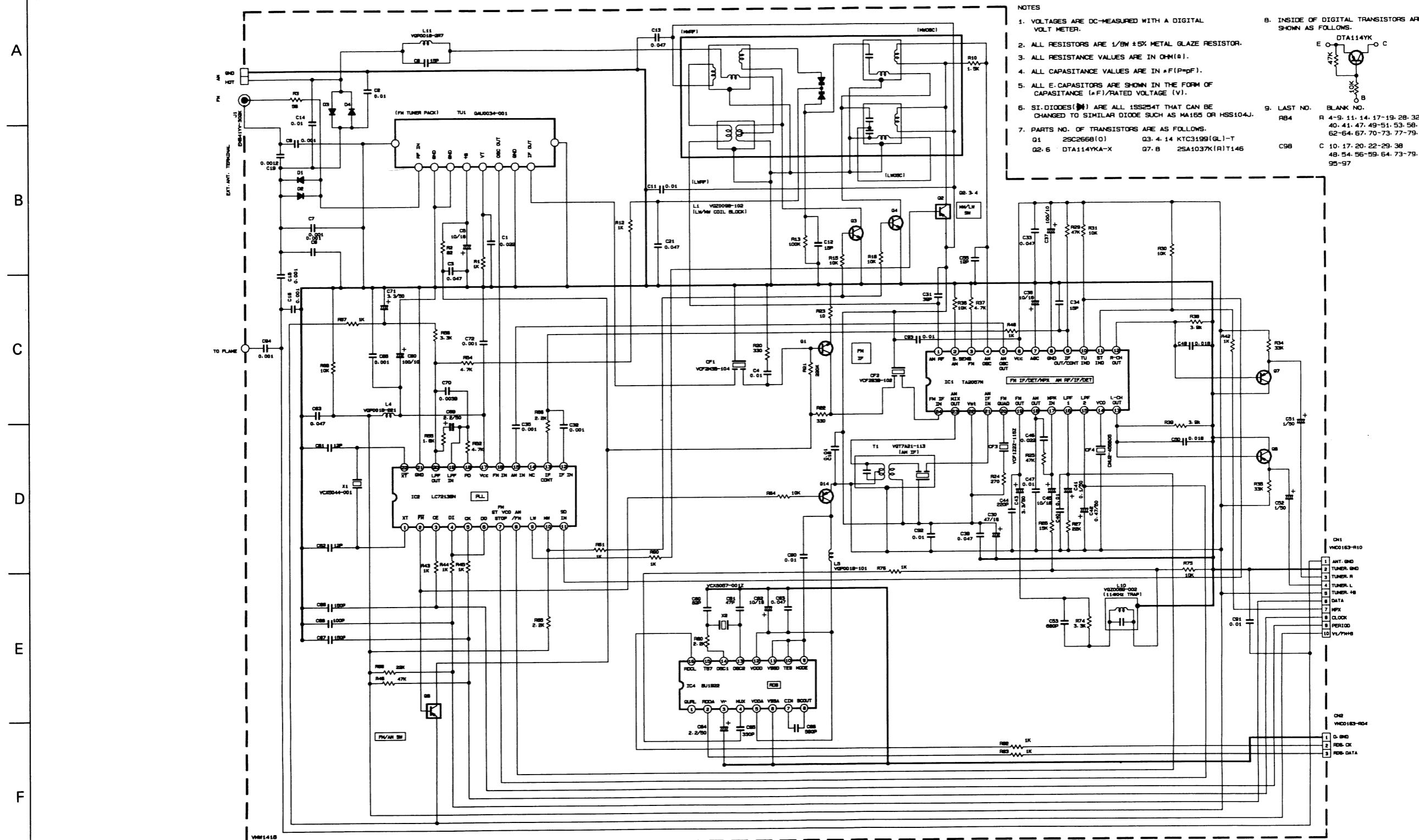
Function Amplifier & Power Amplifier Circuit: Drawing No. VDH9316-005AW

Note : VDH9316005AW(s/G)

Fig. 11-3



1 2 3 4 5 6 7 8 9 10

Tuner Circuit: Drawing No. VDH1038-101TW

CONDITION	PIN NO.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
FM NO SIGNAL	2-0	0.5	0	2.0	5.1	5.1	0	0	0.3	5.1	5.1	1.1	1.1	4.4	3.7	3.7	1.4	0	1.3	1.1	2.0	2.0	5.1	2.0	
IC1 FM 800Hz STEREO	2-0	0.5	0	2.0	5.1	5.1	1.1	0	0.3	0	0	1.1	1.1	4.3	4.1	3.7	1.4	0	1.4	1.1	2.0	2.0	5.1	2.0	
AM NO SIGNAL	2-0	0.5	0	2.0	5.0	5.1	0	0	0.3	5.1	5.1	1.1	1.1	4.5	0.1	0	1.4	1.4	1.5	1.6	2.0	2.0	5.1	2.0	
IC2 FM NO SIGNAL	2-4	0	0	5.1	5.0	5.1	3.7	3.7	2.0	3.8	5.1	0	0	0	0	2.6	5.1	1.0	1.0	3.7	0	2.7			
IC4 FM NO SIGNAL	2-0	2.5	2.5	2.5	5.0	0	2.5	2.5	0	0	0	5.0	2.4	2.4	2.5	2.5									

Tr. NO.	Q1	Q6	Q7	Q8	Q14
PIN NO.	E C B	E C B	E C B	E C B	E C B
FM 87.5MHz NO SIGNAL	0 7.5 0.7	8.8 8.7 0	1.6 0	1.1 1.6 0	1.1 5.1 5.1 4.5
AM 522kHz NO SIGNAL	0 0 0	8.8 0	1.6 1.1 0	1.1 1.1 0	1.1 5.1 0.1 8.7
Tr. NO.	Q2	Q3	Q4		
PIN NO.	E C B	E C B	E C B		
AM 522kHz NO SIGNAL	2.0 2.0 0.1	0 0 0.7	0 0 0.7		
AM 144kHz NO SIGNAL	2.0 2.0 2.0	0 0 0.1	0 0 0.1		

Fig. 11-5

12. Location of P. C. Board Parts

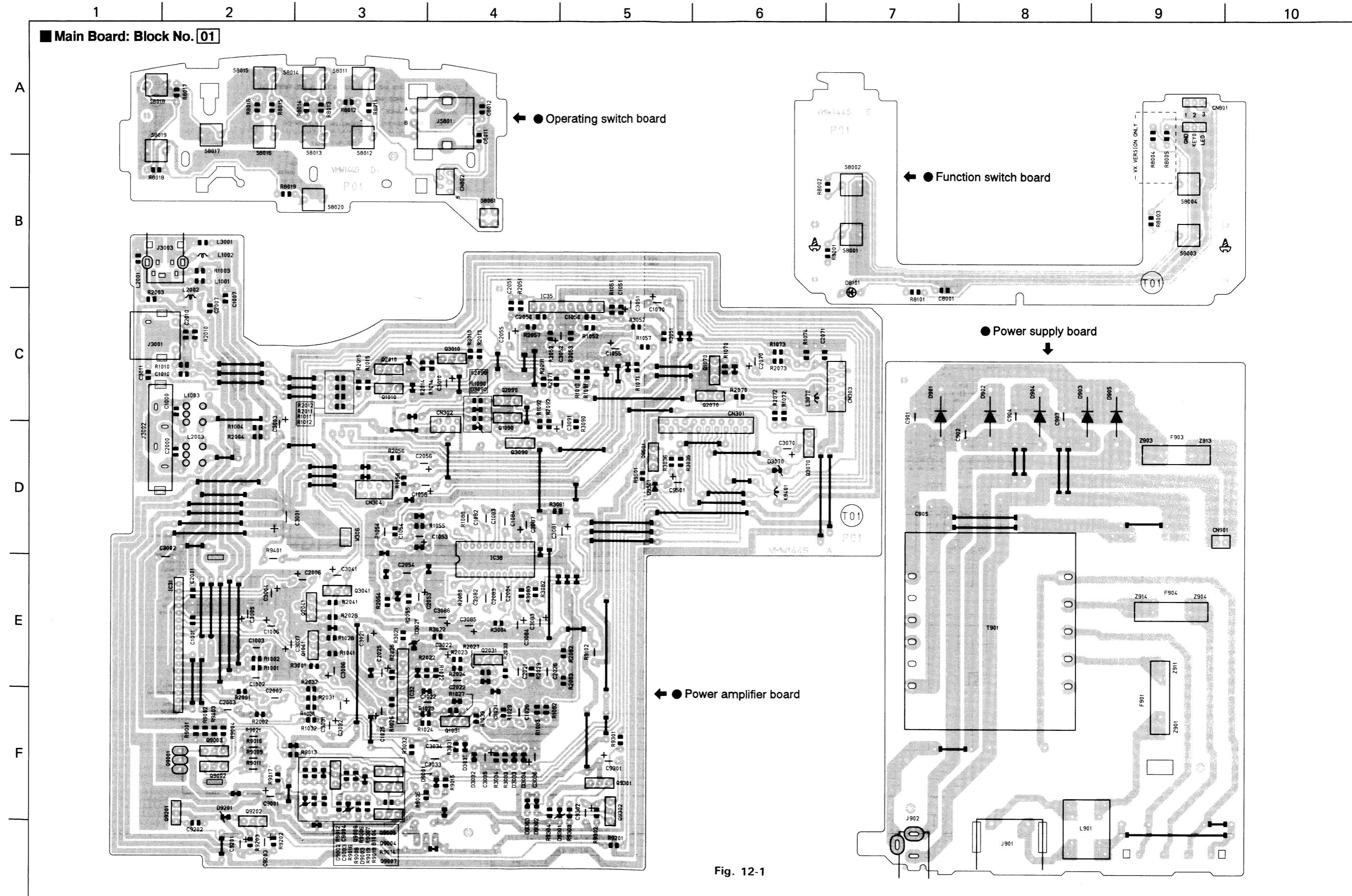


Fig. 12-1

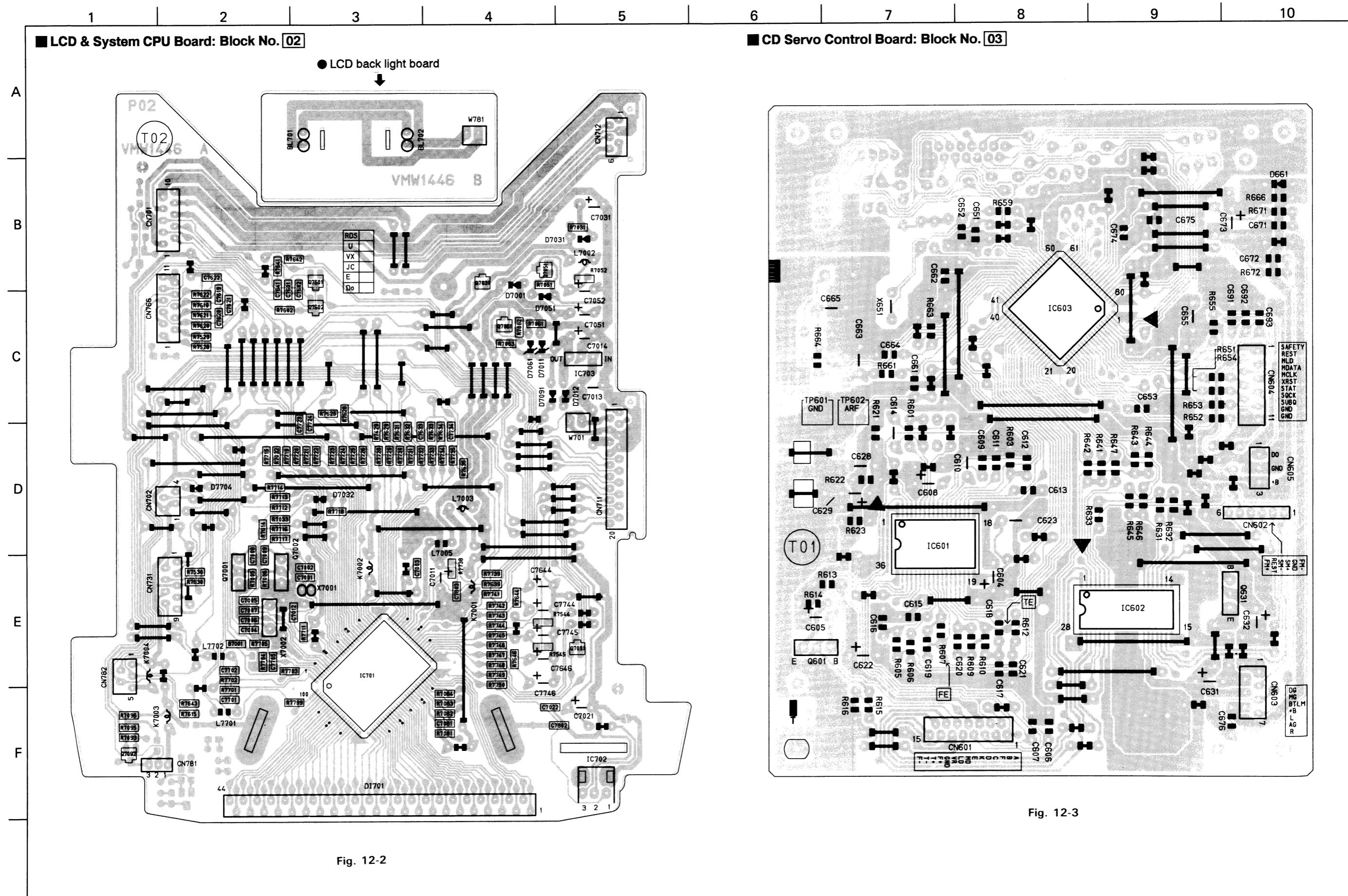


Fig. 12-2

1 2 3 4 5 6 7 8 9 10

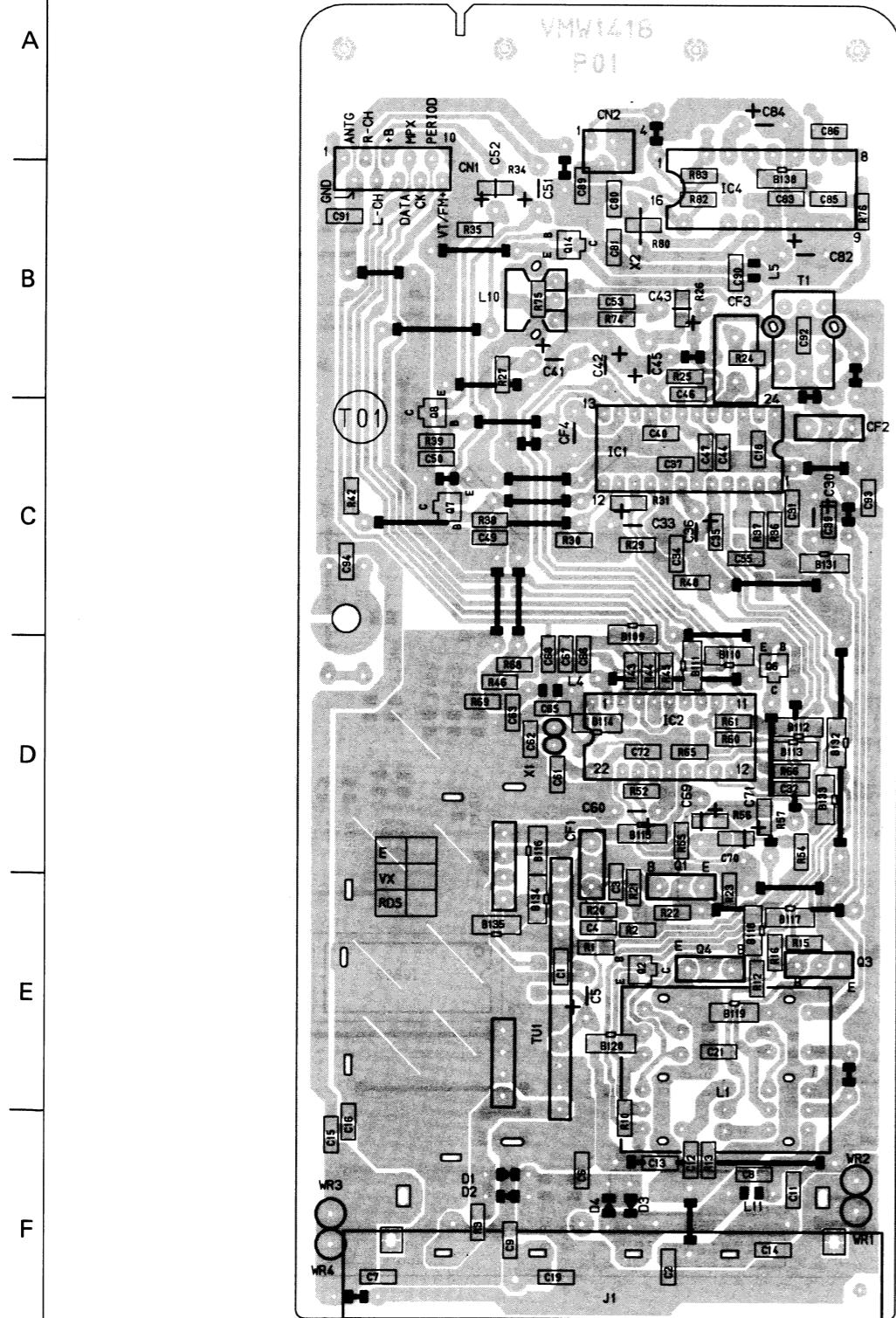
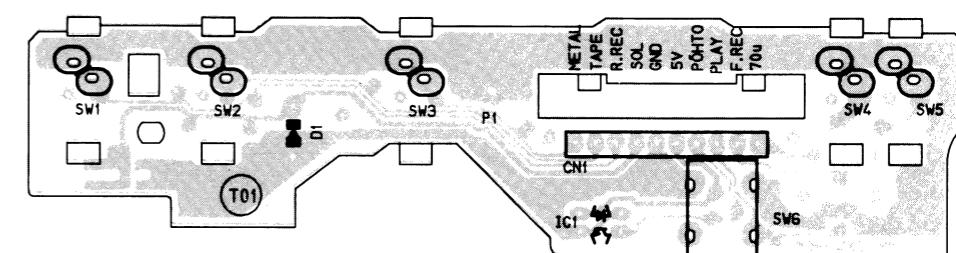
Tuner Board: Block No. 04**«Cassette Mechanism»****Reel Pulse Board: Block No. 05**

Fig. 12-5

Fig. 12-4

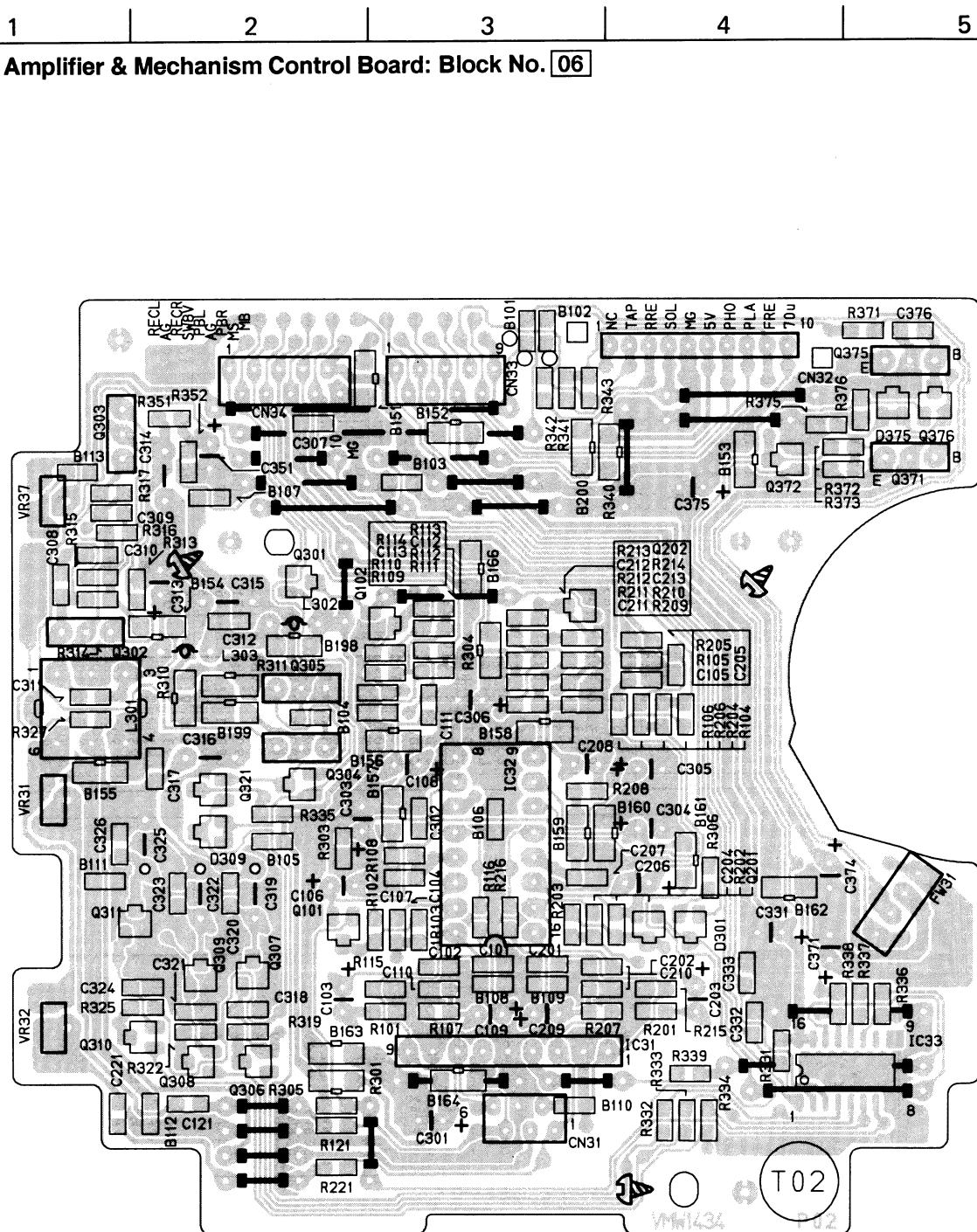


Fig. 12-6

13. Electrical Parts List

Main Board

REF.	PARTS NO.	PART'S NAME	REMARKS	BLOCK NO. [■■■■■■■■]	SUFFIX
BL701	QLL0020-001	P.LAMP			
BL702	QLL0020-001	P.LAMP	5% 1/10W		
BU701	NRS0402-001	M.G RESISTOR	.10MF 5% 50V		
C 901	QFLC1HJ-1047M	M.CAPACITOR	.10MF 5% 50V		
A C 902	QFLC1HJ-1047M	M.CAPACITOR	.10MF 5% 50V		
A C 903	QFLC1HJ-1047M	M.CAPACITOR	.10MF 5% 50V		
A C 904	QFLC1HJ-1047M	M.CAPACITOR	.10MF 5% 50V		
CN301	VMC0314-S20	CONNECTOR			
CN302	VMC0314-S06	CONNECTOR			
CN303	VMC0163-010	CONNECTOR			
CN304	VMC0163-007	CONNECTOR			
CN801	VMC0289-S03K	CONNECTOR			
CN802	VMC0163-R05	CONNECTOR			
CN901	VMC000-002	CONNECTOR			
C1000	QCAB1CM-332Y	C.CAPACITOR	3300PF 20% 16V		
C1001	QCBB1HK-331Y	C.CAPACITOR	330PF 10% 50V		
C1002	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V		
C1003	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V		
C1006	QTE1C03-106Z	E.CAPA. 1.M			
C1007	QCBB1HK-221Y	C.CAPACITOR	220PF 10% 50V		
C1010	QCBB1HK-221Y	C.CAPACITOR	220PF 10% 50V		
C1021	QFN41HJ-823	M.CAPA. 1.M	.082MF 5% 50V		
C1022	QFN41HJ-823	M.CAPA. 1.M	.082MF 5% 50V		
C1025	QTE1A03-226Z	E.CAPACITOR			
C1026	QFV1HJ-334ZM	FILM CAPACITOR	.33MF 5% 50V		
C1041	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V		
C1050	QCS11HJ-300	C.CAPACITOR	30PF 5% 50V		
C1051	QCS11HJ-100	C.CAPACITOR	10PF 5% 50V		
C1053	QTE1C03-106Z	E.CAPA. 1.M			
C1054	QFV81HJ-392	M.CAPA. 1.M	3900PF 5% 50V		
C1055	QE141EM-475	E.CAPACITOR	4.7MF 20% 25V		
C1056	QTE1C03-106Z	E.CAPA. 1.M			
C1070	QE141EM-475	E.CAPACITOR	4.7MF 20% 25V		
C1082	QFLC1HJ-563	M.CAPACITOR	.056MF 5% 50V		
C1083	QFLC1HJ-563	M.CAPACITOR	.056MF 5% 50V		
C1084	QFN41HJ-472	M.CAPACITOR	.056MF 5% 50V		
C2000	QCAB1CM-332Y	C.CAPACITOR	3300PF 20% 16V		
C2001	QCBB1HK-331Y	C.CAPACITOR	330PF 10% 50V		
C2002	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V		
C2003	QCC11EM-104V	C.CAPACITOR	.10MF 20% 25V		
C2006	QTE1C03-106Z	E.CAPA. 1.M			
C2007	QCBB1HK-221Y	C.CAPACITOR	220PF 10% 50V		
C2010	QFN41HJ-223	C.CAPACITOR	220PF 10% 50V		
C2021	QFN41HJ-823	M.CAPA. 1.M	.082MF 5% 50V		
C2022	QFN41HJ-823	M.CAPA. 1.M	.082MF 5% 50V		
C2025	QTE1A03-226Z	E.CAPACITOR			
C2026	QFV1HJ-334ZM	FILM CAPACITOR	.33MF 5% 50V		
C2041	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V		
C2050	QCS11HJ-300	C.CAPACITOR	30PF 5% 50V		
C2051	QCS11HJ-100	C.CAPACITOR	10PF 5% 50V		
C2053	QE1EC03-106Z	E.CAPA. 1.M			
C2054	QFN81HJ-392	M.CAPA. 1.M	3900PF 5% 50V		
C2055	QE141EM-475	E.CAPACITOR	4.7MF 20% 25V		
C2056	QE1EC03-106Z	E.CAPA. 1.M			
C2070	QE141EM-475	E.CAPACITOR	4.7MF 20% 25V		

REF.	PARTS NO.	PART'S NAME	REMARKS	BLOCK NO. [■■■■■■■■]	SUFFIX
C2082	QFLC1HJ-563	M.CAPACITOR	.056MF 5% 50V		
C2083	QFLC1HJ-563	M.CAPACITOR	.056MF 5% 50V		
C2084	QFN41HJ-472	E.CAPACITOR	.4700PF 5% 50V		
C3001	VCE101E-688	M.CAPACITOR			
C3002	QFLC1HJ-104ZM	M.CAPACITOR	.10MF 5% 50V		
C3003	QET41CM-107	E.CAPACITOR	.100MF 20% 16V		
C3004	GETC1AM-337ZN	E.CAPACITOR	.330MF 20% 10V		
C3005	GETC1AM-336ZN	E.CAPACITOR	.33MF 20% 10V		
C3006	QETC1HM-225ZM	E.CAPACITOR	.2.2MF 20% 50V		
C3011	QCVB1CM-103Y	E.CAPACITOR	.010MF 20% 50V		
C3021	QET41CM-476	E.CAPACITOR	.47MF 20% 16V		
C3022	QET41AM-476	E.CAPACITOR	.47MF 20% 10V		
C3031	QET41HM-105	E.CAPACITOR	.1.0MF 20% 50V		
C3032	QET41HM-105	E.CAPACITOR	.1.0MF 20% 50V		
C3033	QFLC1HJ-563	M.CAPACITOR	.056MF 5% 50V		
C3034	QFLC1HJ-563	M.CAPACITOR	.056MF 5% 50V		
C3035	QETC1HM-105	E.CAPACITOR	.1.0MF 20% 50V		
C3036	QET41CM-106	E.CAPACITOR	.10MF 20% 16V		
C3037	QET41CM-106	E.CAPACITOR	.10MF 20% 16V		
C3038	QCBB1HK-151Y	C.CAPACITOR			
C3041	QET41EM-106	E.CAPACITOR	.10MF 20% 25V		
C3051	QET41CM-476	E.CAPACITOR	.47MF 20% 16V		
C3052	QET41CM-476	E.CAPACITOR	.47MF 20% 16V		
C3070	QER1HM-105VM	E.CAPACITOR	.1.0MF 20% 50V		
C3081	QET41CM-227	E.CAPACITOR	.220MF 20% 16V		
C3083	QET41HM-474	E.CAPACITOR	.47MF 20% 50V		
C3084	QET41HM-474	E.CAPACITOR	.47MF 20% 50V		
C3085	QET41HM-474	E.CAPACITOR	.47MF 20% 50V		
C3086	QET41EM-106	E.CAPACITOR	.10MF 20% 25V		
C3087	QETC1HM-224ZM	E.CAPACITOR	.2.2MF 20% 50V		
C3088	QET41HM-105VM	E.CAPACITOR	.1.0MF 20% 50V		
C7810	NCB21HK-103AY	C.CAPACITOR	.010MF 10% 50V		
C8011	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V		
C8012	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V		
C9001	QET41CM-226	E.CAPACITOR	.22MF 20% 16V		
C9002	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V		
C9003	QCBB1HK-221Y	C.CAPACITOR	.010MF 10% 50V		
C9004	QCBB1HK-221Y	C.CAPACITOR	.010MF 20% 16V		
C9005	QET41CM-477	E.CAPACITOR	.47MF 20% 16V		
C9202	QCVB1CM-103Y	C.CAPACITOR	.010MF 20% 16V		
C9203	QET41CM-106	E.CAPACITOR	.10MF 20% 16V		
C9301	QET41AM-107	E.CAPACITOR	.100MF 20% 10V		
C9302	QET41HM-475	E.CAPACITOR	.4.7MF 20% 50V		
C9501	QET41AM-477	E.CAPACITOR	.4.7MF 20% 10V		
A D 901	GA10E2	SI DIODE			
A D 902	GA10E2	SI DIODE			
A D 903	GA10E2	SI DIODE			
A D 904	GA10E2	SI DIODE			
A D 905	GA10E2	SI DIODE			
D 3021	MT24-3JB	ZENER DIODE			
D 3031	1N4148M-T2	SI DIODE			
D 3032	1N4148M-T2	SI DIODE			
D 3033	1N4148M-T2	SI DIODE			
D 3034	1N4148M-T2	SI DIODE			
D 3070	MT26-8JB	ZENER DIODE			

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. [011111]	BLOCK NO. [011111]
D3090	M176-BJB	ZENER DIODE	STANDBY LED RED			R1001 QRD161J-2R2	CARBON RESISTOR 2.2% 1/6W
D8101	L-341D-T12	LED				R1002 QRD161J-R2	CARBON RESISTOR 2.2% 1/6W
D9001	1N4148M-T2	SI DIODE				R1003 QRD161J-151	CARBON RESISTOR 150% 1/6W
D9002	MT28-2 JC	ZENER DIODE				R1004 QRD161J-471	CARBON RESISTOR 470% 1/6W
D9003	MT210JAT-77	ZENER DIODE				R1010 QRD161J-102	CARBON RESISTOR 1.0K% 1/6W
D9201	MT24-3JB	ZENER DIODE				R1011 QRD161J-224	CARBON RESISTOR 220K% 1/6W
D9301	MT23-9	ZENER DIODE				R1012 QRD161J-223	CARBON RESISTOR 62K% 1/6W
D9302	1N4148M-T2	SI DIODE				R1013 QRD161J-153	CARBON RESISTOR 15K% 1/6W
D9303	1N4148M-T2	SI DIODE				R1014 QRD161J-272	CARBON RESISTOR 2.7K% 1/6W
D9501	1N4148M-T2	SI DIODE				R1015 QRD161J-153	CARBON RESISTOR 15K% 1/6W
IC 31	LA2705NA	IC				R1022 QRD161J-224	CARBON RESISTOR 220K% 1/6W
IC 32	BA1521BN	IC				R1023 QRD161J-182	CARBON RESISTOR 1.8K% 1/6W
IC 33	BA1521BN	IC				R1024 QRD161J-202	CARBON RESISTOR 2.0K% 1/6W
IC 38	BH3852S	IC				R1026 QRD161J-153	CARBON RESISTOR 15K% 1/6W
A J 902	QMA431B-V01	FILM CAPACITOR				R1027 QRD161J-103	CARBON RESISTOR 10K% 1/6W
J5801	QSW0547-001	ROTARY ENCODER				R1028 QRD161J-472	CARBON RESISTOR 4.7K% 1/6W
J3001	QNN0090-001	PIN JACK	KUNMING HSP-242			R1029 QRD161J-472	CARBON RESISTOR 4.7K% 1/6W
J3002	QNB0035-001	SPK TERMINAL	KUNMING HSP-324V			R1031 QRD161J-223	CARBON RESISTOR 22K% 1/6W
J3003	VMA6026-001	HEADPHONE JACK				R1032 QRD161J-223	CARBON RESISTOR 22K% 1/6W
K9401	VQ20107-002	INDUCTOR				R1033 QRD161J-103	CARBON RESISTOR 10K% 1/6W
L1001	VQP0018-470	INDUCTOR				R1041 QRD161J-472	CARBON RESISTOR 4.7K% 1/6W
L1002	VQP0048-007	INDUCTOR				R1051 QRD161J-154	CARBON RESISTOR 150K% 1/6W
L1003	VQZ0104-003	INDUCTOR				R1052 QRD161J-102	CARBON RESISTOR 120K% 1/6W
L2001	VQP0018-470	INDUCTOR				R1054 QRD161J-472	CARBON RESISTOR 1.0K% 1/6W
L2002	VQP20048-007	INDUCTOR				R1055 QRD167J-332	CARBON RESISTOR 4.7K% 1/6W
L2003	VQQ20104-003	INDUCTOR				R1056 QRD161J-103	CARBON RESISTOR 10K% 1/6W
L3001	VQP0018-470	INDUCTOR				R1057 QRD161J-124	CARBON RESISTOR 120K% 1/6W
L3070	VQ20048-007	INDUCTOR				R1070 QRD161J-183	CARBON RESISTOR 150K% 1/6W
Q1003	VSD2144S-(W)	TRANSISTOR				R1071 QRD161J-153	CARBON RESISTOR 1.0K% 1/6W
Q1031	KTC3199(GL)-T	TRANSISTOR				R1072 QRD161J-272	CARBON RESISTOR 3.3K% 1/6W
Q1041	2SC2001(L-K)	TRANSISTOR				R1073 QRD161J-102	CARBON RESISTOR 1.0K% 1/6W
Q1070	KTC3199(GL)-T	TRANSISTOR				R1074 QRD161J-152	CARBON RESISTOR 1.5K% 1/6W
Q1090	KTC3199(GL)-T	TRANSISTOR				R1082 QRD161J-302	CARBON RESISTOR 3.0K% 1/6W
Q2010	2SD2144S(W)	TRANSISTOR				R1083 QRD161J-182	CARBON RESISTOR 1.8K% 1/6W
Q2031	KTC3199(GL)-T	TRANSISTOR				R1090 QRD161J-103	CARBON RESISTOR 1.5K% 1/6W
Q2041	2SC2001(L-K)	TRANSISTOR				R1091 QRD161J-223	CARBON RESISTOR 2.7K% 1/6W
Q2070	KTC3199(GL)-T	TRANSISTOR				R1092 QRD161J-392	CARBON RESISTOR 3.9K% 1/6W
Q2090	KTC3199(GL)-T	TRANSISTOR				R2001 QRD161J-2R2	CARBON RESISTOR 2.2% 1/6W
Q3010	KTC3199(GL)-T	TRANSISTOR				R2002 QRD161J-2R2	CARBON RESISTOR 2.2% 1/6W
Q3041	KRA101M-T	TR I/M				R2003 QRD161J-151	CARBON RESISTOR 150% 1/6W
Q3070	KRA101M-T	TR I/M				R2004 QRD161J-471	CARBON RESISTOR 4.7K% 1/6W
Q3090	KRA101M-T	TR I/M				R2010 QRD161J-102	CARBON RESISTOR 1.0K% 1/6W
Q7603	2SC2412KK1	TRANSISTOR				R2011 QRD161J-224	CARBON RESISTOR 220K% 1/6W
A Q9001	2SB1565(E,F)	TR.				R2012 QRD161J-623	CARBON RESISTOR 62K% 1/6W
Q9002	KTC3199(GL)-T	TRANSISTOR				R2013 QRD161J-153	CARBON RESISTOR 15K% 1/6W
Q9003	KTA1267(YG)-T	TRANSISTOR				R2014 QRD161J-272	CARBON RESISTOR 2.7K% 1/6W
Q9004	KRC114M-T	TRANSISTOR				R2015 QRD161J-153	CARBON RESISTOR 15K% 1/6W
Q9005	DTA144TSTP	TRANSISTOR				R2022 QRD161J-224	CARBON RESISTOR 220K% 1/6W
Q9006	KTC3199(GL)-T	TRANSISTOR				R2023 QRD161J-82	CARBON RESISTOR 62K% 1/6W
A Q9201	KTC3199(GL)-T	TRANSISTOR				R2024 QRD161J-202	CARBON RESISTOR 1.0K% 1/6W
Q9202	KTA1267(YG)-T	TRANSISTOR				R2027 QRD161J-103	CARBON RESISTOR 10K% 1/6W
Q9301	KTA1267(YG)-T	TRANSISTOR				R2028 QRD161J-472	CARBON RESISTOR 4.7K% 1/6W
Q9302	KTC3199(GL)-T	TRANSISTOR				R2029 QRD161J-72	CARBON RESISTOR 4.7K% 1/6W
Q9501	2SC2001(L-K)	TRANSISTOR				R2031 QRD161J-223	CARBON RESISTOR 220K% 1/6W

LCD & System CPU Board

BLOCK NO. [E211111]

BLOCK NO. [E211111]

A	REF.	PART'S NO.	PART'S NAME:	REMARKS	SUFFIX	
B7102	NRS181J-0R0NY	MG RESISTOR	5% 1/8W			
B7103	NRS181J-0R0NY	MG RESISTOR	5% 1.8W			
B7104	NRS181J-0R0NY	MG RESISTOR	5% 1/8W			
CN701	VMM0163-R10	CONNECTOR	TO TUNER PWB			
CN702	VMM0163-R04	CONNECTOR	TO TUNER PWB RD			
CN711	VMM0314-P20	CONNECTOR	TO AMP PWB	CONT		
CN712	VMM0314-P06	CONNECTOR	TO AMP PWB	SIG.		
CN713	VMM0163-009	CONNECTOR	TO MECHA PWB			
CN716	VMM0163-R11	CONNECTOR	TO CD PWR			
CN7181	VMM0289-P03	CONNECTOR	TO FRONT SW PWB			
CN7182	VMM0163-005	CONNECTOR	TO TOP SW PWB			
C7001	NCS21HJ-180AY	C CAPACITOR	CLOCK			
C7002	NCS21HJ-180AY	C CAPACITOR	CLOCK			
C7003	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V			
C7004	NCS21HJ-360AY	C CAPACITOR	MAIN CLOCK SHIF			
C7005	NCS21HJ-390AY	C CAPACITOR	MAIN CLOCK SHIF			
C7006	NCS21HJ-200AY	C CAPACITOR	MAIN CLOCK			
C7007	NCS21HJ-220AY	C CAPACITOR	MAIN CLOCK			
C7008	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V			
C7009	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V			
C7011	QER41AM-107	E.CAPACITOR	100MF 20% 10V			
C7012	NCB21HK-103AY	M.CAPACITOR	.010MF 10% 50V			
C7013	FLC21HJ-1042M	M.CAPACITOR	.10MF 5% 50V			
C7014	QER41CM-106	E.CAPACITOR	10MF 20% 16V			
C7021	QER41CM-476M	E.CAPACITOR	4.7MF 20% 16V			
C7022	NCB21HK-102AY	E CAPACITOR	BACKUP CAPACITO			
C7031	QETB01M-228N	E.CAPACITOR	-6.8MF 20% 50V			
C7051	QER61HM-684ZM	E.CAPACITOR	2.2MF 20% 50V			
C7052	QER41HM-225	E.CAPACITOR	2.70PF 5% 50V			
C7081	NCB21HK-104	C CAPACITOR	AM LCD NOISE			
C7601	NCS21HJ-151AY	C CAPACITOR	150PF 5% 50V			
C7602	NCS21HJ-151AY	C CAPACITOR	1.50PF 5% 50V			
C7619	NCS21HJ-271AY	C CAPACITOR	2.70PF 5% 50V			
C7620	NCS21HJ-271AY	C CAPACITOR	2.70PF 5% 50V			
C7621	NCS21HJ-271AY	C CAPACITOR	2.70PF 5% 50V			
C7622	NCS21HJ-271AY	C CAPACITOR	2.70PF 5% 50V			
C7633	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V			
C7641	NCS21HJ-151AY	C CAPACITOR	150PF 5% 50V			
C7644	QER41HM-105VM	E.CAPACITOR	1.0MF 20% 50V			
C7666	QER41HM-105VM	E.CAPACITOR	1.0MF 20% 50V			
C7701	NCS21HJ-151AY	C CAPACITOR	150PF 5% 50V			
C7702	NCS21HJ-151AY	C CAPACITOR	150PF 5% 50V			
C7705	NCS21HJ-331AY	C CAPACITOR	330PF 5% 50V			
C7723	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V			
C7724	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V			
C7734	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V			
C7744	QER41HM-225	E.CAPACITOR	2.2MF 20% 50V			
C7745	GER61HM-335ZM	E.CAPACITOR	3.5MF 20% 50V			
C7776	QER41HM-225	E.CAPACITOR	2.2MF 20% 50V			
C7802	NCB21HK-103AY	C CAPACITOR	MIN COM NOISE			
C7803	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V			
D1701	VGL1221-002	LCD	4.4PIN			
D7001	MT28-2JB	SI DIODE	USSV			
A D7012	1N414M-T2	ZENER DIODE	SHORT HODO			
A D7012	1N414M-T2	SI DIODE	SHORT HODO			

A	REF.	PART'S NO.	PART'S NAME:	REMARKS	PART'S NO.	PART'S NAME:	REMARKS	BLOCK NO. [E211111]
D7031		1N4148M-T2	SI DIODE					
D7032		1N4148M-T2	SI DIODE					
D7051		1N4148M-T2	ZENER DIODE					
D7061		MT25-1JC	ZENER DIODE					
D7091		1N4148M-T2	SI DIODE					
D7703		1N4148M-T2	SI DIODE					
D7704		1N4148M-T2	SI DIODE					
D7705		UPD-806GF-097	IC					
I C702		PIC-2104-3SP	REMOKON SENSOR					
A I C703		KIA78506P-T	IC					
K7001		VQZ0107-002	INDUCTOR					
K7002		VQZ0107-002	INDUCTOR					
K7003		VQZ0107-002	INDUCTOR					
K7004		VQZ0107-002	INDUCTOR					
L7002		VQP0033-100Z	INDUCTOR					
L7003		VQP0033-100Z	INDUCTOR					
L7005		VQP0018-4R7	INDUCTOR					
L7701		VQP0018-4R7	INDUCTOR					
L7702		VQP0018-4R7	INDUCTOR					
G7001		2SC2668(C)	TRANSISTOR					
G7002		2SC2668(C)	TRANSISTOR					
G7031		2SA1037AKRS-X	TRANSISTOR					
G7051		DTC114TKT146	TRANSISTOR					
G7061		2SC2412KK1	TRANSISTOR					
G7091		2SC2412KK1	TRANSISTOR					
G7601		DTC144TKA-X	CHIP TR.C-M					
G7602		DTC144TKA-X	TRANSISTOR					
R7005		NRSA02J-822NY	MG RESISTOR					
R7006		NRSA02J-822NY	MG RESISTOR					
R7031		NRSA02J-331NY	MG RESISTOR					
R7032		NRSA02J-103NY	MG RESISTOR					
R7033		NRSA02J-102NY	MG RESISTOR					
R7051		NRSA02J-103NY	MG RESISTOR					
R7052		NRSA02J-103NY	MG RESISTOR					
R7061		NRSA02J-333NY	MG RESISTOR					
R7062		NRSA02J-103NY	MG RESISTOR					
R7063		NRSA02J-104NY	MG RESISTOR					
R7081		NRSA02J-104NY	MG RESISTOR					
R7082		NRSA02J-104NY	MG RESISTOR					
R7083		NRSA02J-104NY	MG RESISTOR					
R7084		NRSA02J-273NY	MG RESISTOR					
R7093		NRSA02J-153NY	MG RESISTOR					
R7095		NRSA02J-3-33NY	MG RESISTOR					
R7096		NRSA02J-102NY	MG RESISTOR					
R7429		NRSA02J-913NY	RES-C-M					
R7528		NRSA02J-223NY	MG RESISTOR					
R7529		NRSA02J-4-75NY	MG RESISTOR					
R7530		NRSA02J-103NY	MG RESISTOR					
R7544		NRSA02J-114NY	RES-C.M					
R7602		NRSA02J-102NY	MG RESISTOR					
R7603		NRSA02J-103NY	MG RESISTOR					
R7615		NRSA02J-103NY	MG RESISTOR					
R7619		NRSA02J-122NY	MG RESISTOR					

BLOCK NO. 0211111

BLOCK NO. 0211111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	S U F F I X	REF.	PARTS NO.	PARTS NAME	REMARKS	S U F F I X
R7620	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W			R7747	NRSA02J-252NY	MG RESISTOR	2.2K 5% 1/10W	
R7621	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W			R7748	NRSA02J-13NY	MG RESISTOR	15K 5% 1/10W	
R7622	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W			R7749	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W	
R7625	NRSA02J-823NY	MG RESISTOR	82K 5% 1/10W			R7750	NRSA02J-22NY	MG RESISTOR	2.2K 5% 1/10W	
R7628	NRSA02J-823NY	MG RESISTOR	82K 5% 1/10W			R7759	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W	
R7629	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W			X7001	VCX5000-002	CRYSTAL	CLOCK	
R7630	NRSA02J-563NY	MG RESISTOR	56K 5% 1/10W			X7002	M224.19	CERA LOCK	MAIN CLOCK	
R7631	NRSA02J-104NY	MG RESISTOR	100K 5% 1/10W							
R7632	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W							
R7633	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W							
R7634	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W							
R7635	NRSA02J-104NY	MG RESISTOR	100K 5% 1/10W							
R7639	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7641	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7642	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7643	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W							
R7644	NRSA02J-683NY	MG RESISTOR	68K 5% 1/10W							
R7646	NRSA02J-683NY	MG RESISTOR	68K 5% 1/10W							
R7701	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W							
R7702	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W							
R7703	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7704	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W							
R7705	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7711	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7712	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7713	NRSA02J-222NY	MG RESISTOR	1.0K 5% 1/10W							
R7714	NRSA02J-102NY	MG RESISTOR	RDSONLY							
R7715	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7716	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W							
R7717	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W							
R7718	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7719	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7720	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7721	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7722	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W							
R7723	NRSA02J-222NY	MG RESISTOR	1.0K 5% 1/10W							
R7724	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7725	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7726	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7728	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7729	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7730	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7731	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7732	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7733	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7734	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7735	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7738	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7739	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7741	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7742	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7743	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W							
R7747	NRSA02J-563NY	MG RESISTOR	56K 5% 1/10W							
R7748	NRSA02J-473NY	MG RESISTOR	47K 5% 1/10W							
R7746	NRSA02J-333NY	MG RESISTOR	33K 5% 1/10W							

CD Sercvo Control Board

BLOCK NO. 03111111

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C	604	QEK51AM-107	E.CAPACITOR	100MF 20% 10V		R	606	GRD161J-913	CARBON RESISTOR	91K 5% 1/6W	
C	605	QE141EM-106	E.CAPACITOR	10MF 20% 25V		R	607	GRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
C	606	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V		R	609	GRD161J-114	C.CAPACITOR	110K 5% 1/6W	
C	607	QCBB1HK-102Y	C.CAPACITOR	1000PF 10% 50V		R	610	GRD161J-154	C.CAPACITOR	150K 5% 1/6W	
C	608	QE141HM-105	E.CAPACITOR	1.0MF 20% 50V		R	612	GRD161J-103	CARBON RESISTOR	10K 5% 1/6W	
C	609	QCBB1HK-101Y	C.CAPACITOR	100F 10% 50V		R	613	GRD161J-121	CARBON RESISTOR	120 5% 1/6W	
C	610	QFLC1CJ-2-32M	M.CAPACITOR	.027MF 5% 50V		R	614	GRD161J-100	CARBON RESISTOR	10 5% 1/6W	
C	611	QCB11CM-222Y	C.CAPACITOR	2200PF 20% 16V		R	615	GRD161J-120	CARBON RESISTOR	12 5% 1/6W	
C	612	QCB11CM-103Y	C.CAPACITOR	.010MF 20% 16V		R	616	GRD161J-910Y	CARBON RESISTOR	91 5% 1/6W	
C	613	QCBB1HK-333Y	C.CAPACITOR	330PF 10% 50V		R	621	GRD161J-330	CARBON RESISTOR	33 5% 1/6W	
C	614	QFLC1HJ-10-27M	M.CAPACITOR	-10MF 5% 50V		R	622	GRD161J-330	CARBON RESISTOR	33 5% 1/6W	
C	615	QCB11EZ-223	C.CAPACITOR	.022MF +80:-20%		R	623	GRD161J-330	CARBON RESISTOR	33 5% 1/6W	
C	616	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	631	GRD161J-331	CARBON RESISTOR	330 5% 1/6W	
C	617	QCB11EZ-223	C.CAPACITOR	.022MF +80:-20%		R	615	GRD161J-101	CARBON RESISTOR	100 5% 1/6W	
C	618	QCB11CM-222Y	C.CAPACITOR	2200PF 20% 16V		R	633	GRD161J-273	CARBON RESISTOR	27K 5% 1/6W	
C	619	QCBB1HK-271Y	C.CAPACITOR	270PF 10% 50V		R	641	GRD161J-563	CARBON RESISTOR	56K 5% 1/6W	
C	620	QCS11HJ-470	C.CAPACITOR	4.7PF 5% 50V		R	642	GRD161J-123	CARBON RESISTOR	12K 5% 1/6W	
C	621	QCBB1HK-822Y	E.CAPACITOR	820PF 10% 50V		R	643	GRD161J-822	CARBON RESISTOR	8.2K 5% 1/6W	
C	622	QET41AM-476	E.CAPACITOR	4.7MF 20% 10V		R	644	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
C	623	QFLC1HJ-1042M	M.CAPACITOR	.10MF 5% 50V		R	645	GRD161J-223	CARBON RESISTOR	22K 5% 1/6W	
C	628	QCC11EM-4-73Y	C.CAPACITOR	.047MF 20% 25V		R	646	GRD161J-182	CARBON RESISTOR	1.8K 5% 1/6W	
C	629	QE141AM-107	E.CAPACITOR	1.0MF 20% 10V		R	647	GRD167J-562	CARBON RESISTOR	5.6K 5% 1/6W	
C	631	QE141AM-477	E.CAPACITOR	4.7MF 20% 10V		R	651	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
C	632	QEK51AM-107	E.CAPACITOR	1.0MF 20% 10V		R	652	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
C	651	QCS11HJ-120	C.CAPACITOR	12PF 5% 50V		R	653	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
C	652	QCC11HJ-150	C.CAPACITOR	.047MF 20% 25V		R	654	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
C	653	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	655	GRD161J-471	CARBON RESISTOR	4.7K 5% 1/6W	
C	655	QCC11EM-4-73Y	C.CAPACITOR	.047MF 20% 25V		R	659	GRD161J-671	CARBON RESISTOR	4.7K 5% 1/6W	
C	661	QCBB1HK-471Y	C.CAPACITOR	4.70PF 10% 50V		R	661	GRD161J-104	CARBON RESISTOR	100K 5% 1/6W	
C	662	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	663	GRD161J-124	CARBON RESISTOR	120K 5% 1/6W	
C	663	QFLC1HJ-223M	M.CAPACITOR	.022MF 5% 50V		R	664	GRD161J-681	CARBON RESISTOR	680 5% 1/6W	
C	664	QCHB1EZ-223	C.CAPACITOR	.022MF +80:-20%		R	666	GRD161J-220	CARBON RESISTOR	22 5% 1/6W	
C	665	QFV1HJ-3342M	FILM CAPACITOR	.35MF 5% 50V		R	671	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
C	671	QCB11CM-152Y	C.CAPACITOR	1500PF 20% 16V		R	672	GRD161J-102	CARBON RESISTOR	1.0K 5% 1/6W	
C	672	QCXB1CM-152Y	C.CAPACITOR	1500PF 20% 16V		X	651	VCX5016-934V	CRYSTAL	16.9344MHz	
C	673	QTE1C05-227	E.CAPACITOR	.022MF 5% 50V							
C	674	QCB11EZ-223	C.CAPACITOR	.022MF +80:-20%							
C	675	QCBB1HK-102Y	C.CAPACITOR	AG-DG							
C	676	QCBB1HK-102Y	C.CAPACITOR	AG-DG							
C	691	QCBB1HK-151Y	C.CAPACITOR	DENGEN NOISE							
C	692	QCBB1HK-151Y	C.CAPACITOR	DENGEN NOISE							
C	693	QCBB1HK-151Y	C.CAPACITOR	DENGEN NOISE							
CN601		QGF1008F1-15	15PIN CONNECTOR	TO RF							
CN603		VMC0163-R07	CONNECTOR	TO AUDIO							
CN604		VMC0163-R11	CONNECTOR	TO MICON							
CN605		VMC0041-003	CONNECTOR	TO DIGITAL OUT							
D	661	ISS133	SI DIODE								
IC001		AN8806SB	IC	RF AMP							
IC003		MN35510	IC	DRIVER							
IC002		BA6677FP	IC	1CHIP PROCESSER							
Q	601	2SA552 (L/K)	TRANSISTOR								
Q	631	2SA932 (L/K)	TRANSISTOR								
R	601	GRD161J-123	CARBON RESISTOR	12K 5% 1/6W							
R	603	GRD161J-125	CARBON RESISTOR	1.2M 5% 1/6W							
R	605	GRD167J-134	C.RESISTOR	130K 5% 1/6W							

Tuner Board

BLOCK NO. [4] [] []

BLOCK NO. [4] [] []

PARTS NO. PARTS NAME REMARKS SUFFIX

REF. PARTS NO. PARTS NAME REMARKS SUFFIX

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 1	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	
C 2	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 3	NCB21HK-473AY	C CAPACITOR	.047MF 10% 50V	
C 4	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 5	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	E.CAPACITOR
C 6	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	C CAPACITOR
C 7	NCS21HJ-102AY	C CAPACITOR	1000PF 5% 50V	C CAPACITOR
C 8	NCS21HJ-150AY	C CAPACITOR	15PF 5% 50V	C CAPACITOR
C 9	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	C CAPACITOR
C 11	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	C CAPACITOR
C 12	NCT21HK-150AY	C CAPACITOR	1000PF +50:-10% 1	C CAPACITOR
C 13	NCB21HK-473AY	C CAPACITOR	.047MF 10% 25V	C CAPACITOR
C 14	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	C CAPACITOR
C 15	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	C CAPACITOR
C 16	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	C CAPACITOR
C 18	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	C CAPACITOR
C 19	NCB21HK-122AY	C CAPACITOR	1200PF 10% 50V	C CAPACITOR
C 21	NCB21HK-473AY	C CAPACITOR	.047MF 10% 25V	CERAMIC FILTER
C 30	QEK41CM-476	E.CAPACITOR	4.7MF 20% 16V	C FILTER
C 31	NCS21HJ-390AY	C CAPACITOR	39PF 5% 50V	CERAMIC FILTER
C 32	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	CERA LOCK
C 33	QEK61HM-107Z	E.CAPACITOR	.010MF 10% 50V	CN 1 VMCO163-R10
C 34	NCS21HJ-150AY	C CAPACITOR	15PF 5% 50V	CN 2 VMCO163-R04
C 35	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	FOR RDS
C 36	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	SI DIODE
C 37	NCB21HK-473AY	C CAPACITOR	.047MF 10% 25V	SI DIODE
C 39	NCB21HK-473AY	C CAPACITOR	100MF 20% 10V	D 4 ISS133
C 40	NCB21HK-103AY	C CAPACITOR	15PF 5% 50V	D 1 TA2057N
C 41	QEK41HM-104	E.CAPACITOR	.10MF 20% 50V	D 2 LC72136N
C 42	QEK41HM-474	E.CAPACITOR	.047MF 20% 50V	D 2 ISS133
C 43	QEK61HM-335Z	E.CAPACITOR	.018MF 10% 50V	D 3 ISS133
C 44	NCS21HJ-221AY	C CAPACITOR	220PF 5% 50V	D 4 BU1922
C 45	QEK41HM-106	E.CAPACITOR	10MF 20% 16V	J 1 EMB41YY-302K
C 46	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V	ANT TERMINAL
C 47	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	MW/LW RF/OSC
C 49	NCB21HK-183AY	C CAPACITOR	.018MF 10% 50V	L 1 VQZ0098-102
C 50	NCB21HK-183AY	C CAPACITOR	.018MF 10% 50V	COIL BLOCK
C 51	QEK61HM-105	E.CAPACITOR	1.0MF 20% 50V	L 4 VQPO018-221
C 52	QEK41HM-105	E.CAPACITOR	1.0MF 20% 50V	L 5 VQPO018-101
C 53	NCB21HK-681AY	C CAPACITOR	680PF 10% 50V	L 10 VQZ0069-002
C 55	NCS21HJ-120AY	C CAPACITOR	12PF 5% 50V	L 11 VQPO018-2R7
C 60	QEK61HM-107Z	E.CAPACITOR	100MF 20% 10V	INDUCTOR
C 61	NCS21HJ-120AY	C CAPACITOR	12PF 5% 50V	INDUCTOR
C 62	NCB21HK-120AY	C CAPACITOR	1.0MF 20% 50V	INDUCTOR
C 63	NCB21HK-473AY	C CAPACITOR	1.0MF 20% 50V	INDUCTOR
C 65	NCB21HK-102AY	C CAPACITOR	150PF 5% 50V	TRAP COIL
C 66	NCS21HJ-151AY	C CAPACITOR	150PF 5% 50V	TRAP COIL
C 67	NCS21HJ-151AY	C CAPACITOR	100PF 5% 50V	INDUCTOR
C 68	NCS21HJ-101AY	C CAPACITOR	100PF 5% 50V	INDUCTOR
C 69	QEK41HM-225	E.CAPACITOR	2.2MF 20% 50V	114KHZ TRAP
C 70	NCB21HK-392AY	C CAPACITOR	3900PF 10% 50V	TRANSISTOR
C 71	QEK61HM-335Z	E.CAPACITOR	3.3MF 20% 50V	TRANSISTOR
C 72	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	TRANSISTOR
C 80	NCS21HJ-820AY	C CAPACITOR	82PF 5% 50V	TRANSISTOR
C 81	NCS21HJ-470AY	C CAPACITOR	4.7PF 5% 50V	TRANSISTOR

A REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
C 82	QEK41CM-106	E.CAPACITOR	10MF 20% 16V	
C 83	NCB21HK-473AY	C CAPACITOR	.047MF 10% 25V	
C 84	QEK1HM-225	E.CAPACITOR	.2MF 20% 50V	
C 85	NCB21HK-331AY	C CAPACITOR	.330PF 10% 50V	
C 86	NCB21HK-561	C CAPACITOR	.560PF 10% 50V	
C 89	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	
C 90	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 91	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 92	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 93	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V	
C 94	NCB21HK-102AY	C CAPACITOR	1000PF 10% 50V	
CF 1	VCF2M3B-104	CERAMIC FILTER	F M IF	
CF 2	VCF2S3B-102	C FILTER	F M IF	
CF 3	VCF1Z2-115Z	CERAMIC FILTER		
CF 4	CMU2-456B05	CERA LOCK		
CN 1	VMCO163-R10	CONNECTOR		
CN 2	VMCO163-R04	CONNECTOR		
D 1	ISS133	SI DIODE		
D 2	ISS133	SI DIODE		
D 3	ISS133	SI DIODE		
D 4	ISS133	SI DIODE		
L 1	VQZ0098-102	COIL BLOCK		
L 4	VQPO018-221	INDUCTOR		
L 5	VQPO018-101	INDUCTOR		
L 10	VQZ0069-002	TRAP COIL		
L 11	VQPO018-2R7	INDUCTOR		
J 1	EMB41YY-302K	ANT TERMINAL		
L 1	VQZ0098-102	COIL BLOCK		
L 4	VQPO018-221	INDUCTOR		
L 5	VQPO018-101	INDUCTOR		
L 10	VQZ0069-002	TRAP COIL		
L 11	VQPO018-2R7	INDUCTOR		
Q 1	2SC2668(T)	TRANSISTOR		
Q 2	DTA141KA-X	TR. I.M.		
Q 3	KTC3199(GL)-T	TRANSISTOR		
Q 4	KTC3199(GL)-T	TRANSISTOR		
Q 6	DTA141KA-X	TR. I.M.		
Q 7	2SA1037(KR)	TRANSISTOR		
Q 8	2SA1037(KR)	TRANSISTOR		
Q 14	DTA141KA-X	TR. I.M.		
Q 1	NRA02J-102NY	MG RESISTOR		
Q 2	NRA02J-820NY	MG RESISTOR		
R 3	NRA02J-560NY	MG RESISTOR		
R 10	NRA02J-152NY	MG RESISTOR		
R 12	NRA02J-102NY	MG RESISTOR		
R 13	NRA02J-104NY	MG RESISTOR		
R 15	NRA02J-103NY	MG RESISTOR		
R 16	NRA02J-331NY	MG RESISTOR		
R 20	NRA02J-331NY	MG RESISTOR		
R 21	NRA02J-22NY	MG RESISTOR		
R 22	NRA02J-331NY	MG RESISTOR		
R 23	NRA02J-103NY	MG RESISTOR		
R 24	NRA02J-271NY	MG RESISTOR		
R 25	NRA02J-473NY	MG RESISTOR		
R 26	NRA02J-153NY	MG RESISTOR		
R 27	NRA02J-223NY	MG RESISTOR		
R 28	NRA02J-473NY	MG RESISTOR		
R 29	NRA02J-473NY	MG RESISTOR		

Reel Pulse Board

▲ REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	BLOCK NO. <u>Q4</u> <u> </u>
R 30	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 31	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 34	NRSA02J-333NY	MG RESISTOR	33K 5% 1/10W		
R 35	NRSA02J-333NY	MG RESISTOR	33K 5% 1/10W		
R 36	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 37	NRSA02J-722NY	MG RESISTOR	4.7K 5% 1/10W		
R 38	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W		
R 39	NRSA02J-392NY	MG RESISTOR	3.9K 5% 1/10W		
R 42	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 43	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 44	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 45	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 46	NRSA02J-473NY	MG RESISTOR	4.7K 5% 1/10W		
R 48	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 52	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W		
R 54	NRSA02J-472NY	MG RESISTOR	4.7K 5% 1/10W		
R 55	NRSA02J-182NY	MG RESISTOR	1.8K 5% 1/10W		
R 56	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W		
R 57	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 60	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 61	NRSA02J-103NY	MG RESISTOR	1.0K 5% 1/10W		
R 65	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W		
R 66	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W		
R 68	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W		
R 69	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 74	NRSA02J-333NY	MG RESISTOR	3.3K 5% 1/10W		
R 75	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
R 76	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W		
R 80	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W		
R 82	NRSA02J-103NY	MG RESISTOR	1.0K 5% 1/10W		
R 83	NRSA02J-103NY	MG RESISTOR	1.0K 5% 1/10W		
R 84	NRSA02J-103NY	MG RESISTOR	10K 5% 1/10W		
T 1	VQ17A21-113	IFT			
TU 1	QA00034-001	FRONT END			
X 1	VC15044-001	CRYSTAL			
X 2	VCX5057-001	CRYSTAL			

▲ REF.	PARTS NO.	PARTS NAME	PARTS NO.	PARTS NAME	REMARKS	BLOCK NO. <u>Q5</u> <u> </u>
CN 1	EMV7159-010	10P PLUG ASSY				
D 1	1SR139-100	SI DIODE				
I C 1	SG-10513-BB, C	PHOTO SENSER				
P 1	VMZ0015-002	POST PIN				
SW 1	MXS00220MVLO	CASSETTE SWITCH				
SW 2	MXS00220MVLO	CASSETTE SWITCH				
SW 4	MXS00220MVLO	CASSETTE SWITCH				
SW 5	MXS00220MVLO	CASSETTE SWITCH				
SW 6	QSEC001-E03	CASSETTE SWITCH				

Head Amplifier & Mechanism Control Board

BLOCK NO. [06111111]

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	REMARKS	BLOCK NO. [06111111]
C 101	NCS21HK-821AY	C CAPACITOR	820PF 5% 50V				
C 102	NCS21HJ-221AY	E. CAPACITOR	220PF 5% 50V				
C 103	QEK41CM-227	E. CAPACITOR	220MF 20% 6.3V				
C 104	NCB21HK-333AY	C CAPACITOR	.033MF 10% 50V				
C 105	NCB21HK-222AY	C CAPACITOR	2200PF 10% 50V				
C 106	QEK41CM-106	E. CAPACITOR	10MF 20% 16V				
C 107	NCS21HK-561AY	C CAPACITOR	560PF 5% 50V				
C 108	QEK41EM-475	E. CAPACITOR	4.7MF 20% 25V				
C 109	QEK41EM-475	E. CAPACITOR	4.7MF 20% 25V				
C 110	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V				
C 111	NCB21HK-122AY	C CAPACITOR	1200PF 10% 50V				
C 112	NCB21EK-683AY	C CAPACITOR	.068MF 10% 25V				
C 113	NCB21HK-222AY	C CAPACITOR	2200PF 10% 50V				
C 121	NCS21HK-331AY	C CAPACITOR	330PF 5% 50V				
C 201	NCS21HK-821AY	C CAPACITOR	820PF 5% 50V				
C 202	NCS21HK-221AY	E. CAPACITOR	220PF 5% 50V				
C 203	QEK40JM-227	E. CAPACITOR	220MF 6.3V				
C 204	NCB21HK-333AY	C CAPACITOR	.033MF 10% 50V				
C 205	NCB21HK-222AY	C CAPACITOR	2200PF 10% 50V				
C 206	QEK41CM-106	E. CAPACITOR	10MF 20% 16V				
C 207	NCS21HK-561AY	C CAPACITOR	560PF 5% 50V				
C 208	QEK41EM-475	E. CAPACITOR	4.7MF 20% 25V				
C 209	QEK41EM-475	E. CAPACITOR	4.7MF 20% 25V				
C 210	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V				
C 211	NCB21HK-122AY	C CAPACITOR	1200PF 10% 50V				
C 212	NCB21EK-683AY	C CAPACITOR	.068MF 10% 25V				
C 213	NCB21HK-222AY	C CAPACITOR	2200PF 10% 50V				
C 221	NCS21HJ-331AY	E. CAPACITOR	330PF 5% 50V				
C 301	QEKF1AM-107ZN	E. CAPACITOR	100MF 20% 10V				
C 302	NCB21HK-393AY	C CAPACITOR	.039MF 10% 50V				
C 303	QEK40JM-227	E. CAPACITOR	220MF 20% 6.3V				
C 304	QEK41CM-226	E. CAPACITOR	22MF 20% 16V				
C 305	QEK41CM-226	E. CAPACITOR	4.7MF 20% 16V				
C 306	QEK41CM-476	E. CAPACITOR	4.7MF 20% 16V				
C 307	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V				
C 308	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V				
C 309	NCB21HK-562AY	C CAPACITOR	5600PF 10% 50V				
C 310	NCB21HK-223AY	C CAPACITOR	.022MF 10% 50V				
C 311	NCB21HK-682AY	C CAPACITOR	6800PF 10% 50V				
C 313	QEKF1AM-107ZN	E. CAPACITOR	100MF 20% 10V				
C 314	QCT0205-155	ML C. CAPACITOR	1.5MF				
C 315	QCT0205-155	ML C. CAPACITOR	1.5MF				
C 316	QFG32AJ-103ZN	PP CAPACITOR	.010MF 5% 100V				
C 318	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V				
C 319	QFG32AJ-8221N	TF CAPACITOR	820PF 5% 100V				
C 321	NCB21HK-103AY	C CAPACITOR	.010MF 10% 50V				
C 322	QFG32AJ-152ZN	PP CAPACITOR	1500PF 5% 100V				
C 331	QEK41CM-476	E. CAPACITOR	4.7MF 20% 16V				
C 351	QEK41CM-106	E. CAPACITOR	.024MF 20% 10V				
C 371	QEK41EM-475	E. CAPACITOR	4.7MF 20% 25V				
C 374	QEKF1AM-107ZN	E. CAPACITOR	MOTOR +B				
C 375	QEKF1AM-107ZN	E. CAPACITOR	100MF 20% 10V				
C 376	NCB21HK-103AY	CONNECTOR	.010MF 10% 50V				
CN 31	VMCO163-R06	PWB CONNECTOR	PRI/HEAD				
CN 32	QGBE01M1-10	PWB CONNECTOR	PRI/MECHA				

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX	REMARKS	BLOCK NO. [06111111]
CN 33	VMC0163-R09	CONNECTOR	PRI/MICON				
CN 34	VMC0163-R10	CONNECTOR	PRI/AMP				
D 301	MA152WA-TX	DIODE					
D 309	MA704A	S.K.DIODE					
D 375	MA5051(M)	ZENER DIODE					
FW 31	WVS04-06A13K	FLAT WIRE					
IC 31	BA3126N	IC					
IC 32	AN7317	IC					
IC 33	BU94BCF-X	IC					
L 301	QGP0620-001	OSC COIL(BIAS)					
L 303	VQP033-100Z	INDUCTOR					
Q 101	FA1A4ZX	TRANSISTOR					
Q 102	FA1A4ZX	TRANSISTOR					
Q 201	FA1A4ZX	TRANSISTOR					
Q 202	FA1A4ZX	TRANSISTOR					
Q 301	FN1L4M	TRANSISTOR					
Q 302	2SC001(L-K)	TRANSISTOR					
Q 303	2SC001(L-K)	TRANSISTOR					
Q 304	2SC001(L-K)	TRANSISTOR					
Q 305	2SC001(L-K)	TRANSISTOR					
Q 306	2SC1623(6)	TRANSISTOR					
Q 307	2SC1623(6)	TRANSISTOR					
Q 308	2SC1623(6)	TRANSISTOR					
Q 309	2SC1623(6)	TRANSISTOR					
Q 321	FA1L4M	TRANSISTOR					
Q 323	2SC1623(6)	TRANSISTOR					
Q 371	2SA952(L-K)	TRANSISTOR					
Q 372	FA1F4MX	D.TRANSISTOR					
Q 375	2SB62(C)	TRANSISTOR					
Q 376	2SC1623(6)	TRANSISTOR					
R 101	NRSA02J-2-0NY	MG RESISTOR	22.5% 1/10W				
R 102	NRSA02J-182NY	MG RESISTOR	1.8K 5% 1/10W				
R 103	NRSA02J-2-2NY	RESISTOR	2.4K 5% 1/10W				
R 104	NRSA02J-122NY	RESISTOR	1.2K 5% 1/10W				
R 105	NRSA02J-104NY	RESISTOR	1.00K 5% 1/10W				
R 106	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W				
R 107	NRSA02J-123NY	MG RESISTOR	1.2K 5% 1/10W				
R 108	NRSA02J-562NY	MG RESISTOR	5.6K 5% 1/10W				
R 109	NRSA02J-122NY	MG RESISTOR	1.2K 5% 1/10W				
R 110	NRSA02J-4-2NY	MG RESISTOR	4.7K 5% 1/10W				
R 111	NRSA02J-333NY	MG RESISTOR	3.3K 5% 1/10W				
R 112	NRSA02J-222NY	MG RESISTOR	2.2K 5% 1/10W				
R 113	NRSA02J-72NY	MG RESISTOR	6.7K 5% 1/10W				
R 114	NRSA02J-2-2NY	MG RESISTOR	2.7K 5% 1/10W				
R 116	NRSA02J-102NY	MG RESISTOR	1.0K 5% 1/10W				
R 201	NRSA02J-107NY	MG RESISTOR	22.5% 1/10W				
R 202	NRSA02J-182NY	MG RESISTOR	1.8K 5% 1/10W				
R 204	NRSA02J-122NY	RESISTOR	1.2K 5% 1/10W				
R 205	NRSA02J-104NY	MG RESISTOR	100K 5% 1/10W				
R 206	NRSA02J-332NY	MG RESISTOR	3.3K 5% 1/10W				
R 207	NRSA02J-123NY	MG RESISTOR	12K 5% 1/10W				
R 208	NRSA02J-162NY	MG RESISTOR	5.6K 5% 1/10W				
R 209	NRSA02J-122NY	RESISTOR	1.2K 5% 1/10W				

A	REF.	PARTS NO.	PARTS NAME	REMARKS	SUFFIX
R	210	NRSA02J-472NY	MG RESISTOR	4.7K 5%	1/10W
R	211	NRSA02J-333NY	MG RESISTOR	33K 5%	1/10W
R	212	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W
R	213	NRSA02J-472NY	MG RESISTOR	4.7K 5%	1/10W
R	214	NRSA02J-272NY	MG RESISTOR	2.7K 5%	1/10W
R	216	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W
R	221	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W
R	301	NRS181J-221NY	MG RESISTOR	220 5%	1/8W
R	303	NRSA02J-393NY	MG RESISTOR	39K 5%	1/10W
R	304	NRS181J-101NY	MG RESISTOR	100 5%	1/8W
R	305	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W
R	306	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W
R	310	NRS181J-560NY	MG RESISTOR	56 5%	1/8W
R	311	NRS181J-560NY	MG RESISTOR	56 5%	1/8W
R	313	NRSA02J-3R3NYM	RESISTOR	3.3 5%	1/10W
R	314	NRSA02J-223NY	MG RESISTOR	22K 5%	1/10W
R	315	NRSA02J-100NY	MG RESISTOR	10 5%	1/10W
R	316	NRSA02J-223NY	MG RESISTOR	22K 5%	1/10W
R	317	NRSA02J-100NY	MG RESISTOR	10 5%	1/10W
R	319	NRSA02J-152NY	MG RESISTOR	1.5K 5%	1/10W
R	322	NRSA02J-152NY	MG RESISTOR	1.5K 5%	1/10W
R	327	NRSA02J-474NY	MG RESISTOR	470K 5%	1/10W
R	332	NRSA02J-123NY	MG RESISTOR	12K 5%	1/10W
R	333	NRSA02J-123NY	MG RESISTOR	12K 5%	1/10W
R	335	NRSA02J-152NY	MG RESISTOR	1.5K 5%	1/10W
R	336	NRSA02J-47NY	MG RESISTOR	4.7K 5%	1/10W
R	337	NRSA02J-332NY	MG RESISTOR	3.3K 5%	1/10W
R	338	NRSA02J-332NY	MG RESISTOR	3.3K 5%	1/10W
R	339	NRSA02J-222NY	MG RESISTOR	2.2K 5%	1/10W
R	340	NRS181J-391NY	MG RESISTOR	390 5%	1/8W
R	341	NRSA02J-123NY	MG RESISTOR	12K 5%	1/10W
R	342	NRSA02J-203NY	MG RESISTOR	20K 5%	1/10W
R	343	NRSA02J-183NY	MG RESISTOR	18K 5%	1/10W
R	351	NRSA02J-683NY	MG RESISTOR	SHORT TEST TAIS	
R	352	NRSA02J-912NY	RESISTOR	SHORT TEST TAIS	
R	371	NRSA02J-123NY	MG RESISTOR	12K 5%	1/10W
R	372	NRSA02J-102NY	MG RESISTOR	1.0K 5%	1/10W
R	375	NRSA02J-151NY	MG RESISTOR	150 5%	1/10W
R	376	NRSA02J-472NY	MG RESISTOR	4.7K 5%	1/10W
VR	31	QVPA603-503A2	SEMI-V RESISTOR	BIAZ ADJ	
VR	32	QVPA603-503A2	SEMI-V RESISTOR	BIAZ ADJ	
VR	37	QVPA603-103M	SEMI-V RESISTOR	TAPE SPEED ADJ	

14. Packing

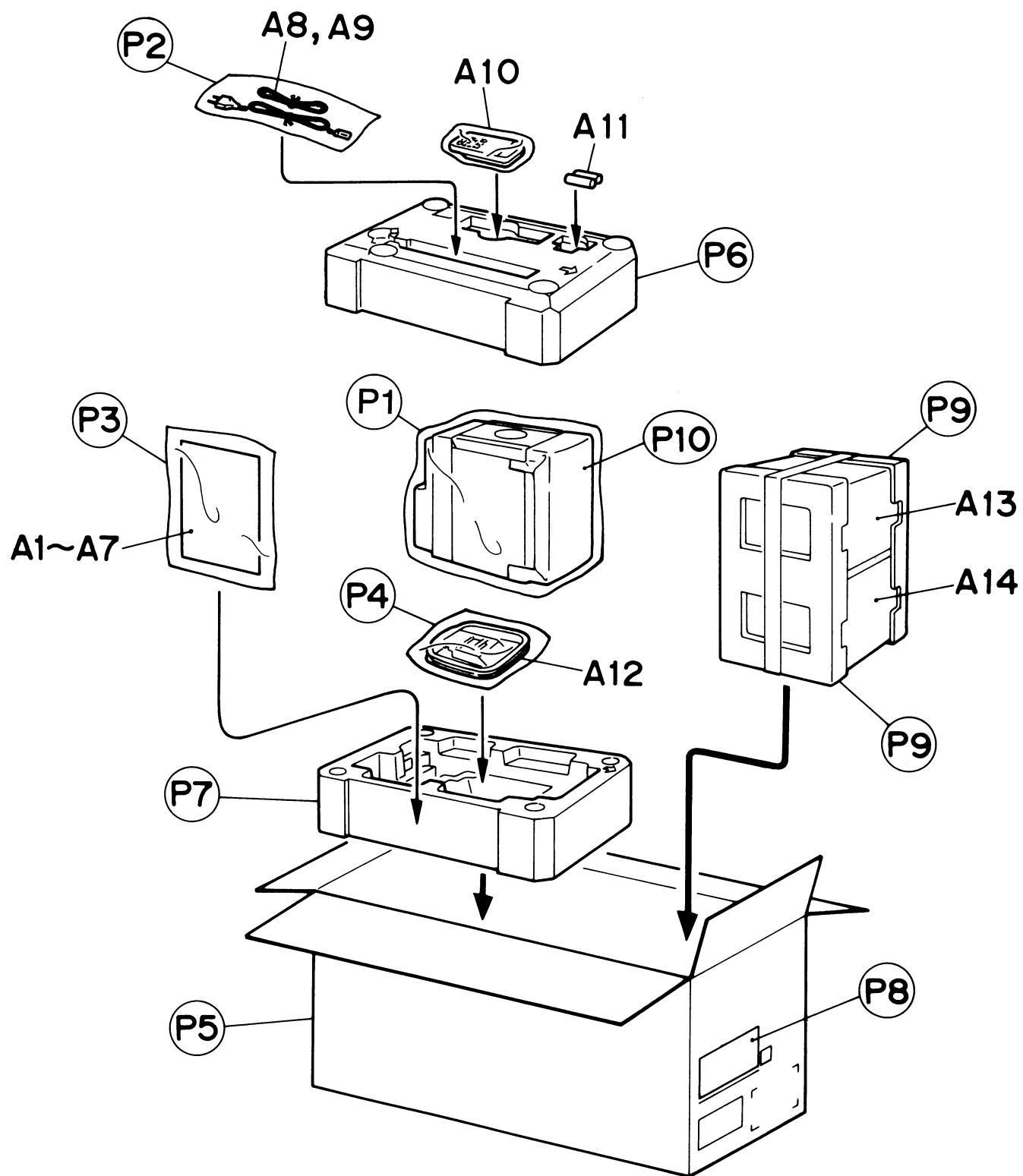


Fig. 14-1

■ Packing Parts List

BLOCK NO. M4MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
P	1	VPE3026-006	POLY BAG	FOR SET	1		
P	2	QPGA015-03503	POLY BAG		1	B	
		QPGA012-02505	POLY BAG	FOR P.CORD	1	E,EN,G	
P	3	VPE3026-004	POLY BAG	INSTRUCTIONS	1		
P	4	VPE3005-042	POLY BAG	FOR AM ANT.	1		
P	5	VPC9317-C001	CARTON		1		
P	6	VPH1709-001	CUSHION(UPPER)		1		
P	7	VPH1709-002	CUSHION(BOTTOM)		1		
P	8	VND3111-219	CARTON LABEL		1		
P	9	VGSP024-004	SIDE CUSHION		2		

■ Accessories

BLOCK NO. M5MM

A	REF.	PARTS NO.	PARTS NAME	REMARKS	QTY	SUFFIX	CLR
A	1	VPK3001-012	SHEET		1		
A	2	VNN9317-271C	INSTRUCTIONS		1	EN	
		VNN9317-671C	INSTRUCTIONS		1	B	
		VNN9317-251C	INSTRUCTIONS		1	E,EN,G	
		VNN9317-261C	INSTRUCTIONS		1	E	
A	3	BT-54003-1	WARRANTY CARD		1	B	
		BT-54006-1	WARRANTY CARD		1	G	
A	4	BT-20066A	SVC CENTRE LIST		1	B	
A	5	E43486-340B	SAFETY SHEET		1		
A	7	VNC1200-107	CAUTION SHEET		1		
A	8	QMP39FO-183	POWER CORD		1	E,EN,G	
		QMP5520-183BS	POWER CORD		1	B	
A	9	EWP503-001	ANT.WIRE		1		
A	10	VGR0063-301	REMOCON UNIT		1		
A	11	R6SPTT/2STA	BATTERY	FM ANT RM-RXUT100 FOR REMOCON	1		
A	12	EQB4001-015	AM LOOP ANT	AM ANT	1		
A	13	UXT100K-SPBOX	SPEAKER BOX		2	B,E	
		UXT100HK-SPBOX	SPEAKER BOX		2	EN,G	
SVP	1	VGSP024-002	SPEAKER NET		2		